

10584234

Connecting via Winsock to STN

Welcome to STN International! Enter x:x

LOGINID:ssptansc1625

PASSWORD:

TERMINAL (ENTER 1, 2, 3, OR ?):2

\* \* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 OCT 02 CA/CAplus enhanced with pre-1907 records from Chemisches Zentralblatt  
NEWS 3 OCT 19 BEILSTEIN updated with new compounds  
NEWS 4 NOV 15 Derwent Indian patent publication number format enhanced  
NEWS 5 NOV 19 WPIX enhanced with XML display format  
NEWS 6 NOV 30 ICSD reloaded with enhancements  
NEWS 7 DEC 04 LINPADOCDB now available on STN  
NEWS 8 DEC 14 BEILSTEIN pricing structure to change  
NEWS 9 DEC 17 USPATOLD added to additional database clusters  
NEWS 10 DEC 17 IMSDRUGCONF removed from database clusters and STN  
NEWS 11 DEC 17 DGENE now includes more than 10 million sequences  
NEWS 12 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment  
NEWS 13 DEC 17 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary  
NEWS 14 DEC 17 CA/CAplus enhanced with new custom IPC display formats  
NEWS 15 DEC 17 STN Viewer enhanced with full-text patent content from USPATOLD  
NEWS 16 JAN 02 STN pricing information for 2008 now available  
NEWS 17 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances  
NEWS 18 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats  
NEWS 19 JAN 28 MARPAT searching enhanced  
NEWS 20 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication  
NEWS 21 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment  
NEWS 22 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements  
NEWS 23 FEB 08 STN Express, Version 8.3, now available  
NEWS 24 FEB 20 PCI now available as a replacement to DPCI  
NEWS 25 FEB 25 IFIREF reloaded with enhancements  
NEWS 26 FEB 25 IMSPRODUCT reloaded with enhancements  
NEWS 27 FEB 29 WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that

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specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 17:01:55 ON 08 MAR 2008

=> EG

EG IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.  
For a list of commands available to you in the current file, enter  
"HELP COMMANDS" at an arrow prompt (=>).

=> FIL REG

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 17:02:02 ON 08 MAR 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 7 MAR 2008 HIGHEST RN 1007169-18-7  
DICTIONARY FILE UPDATES: 7 MAR 2008 HIGHEST RN 1007169-18-7

New CAS Information Use Policies, enter **HELP USAGETERMS** for details.

TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

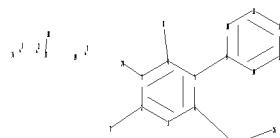
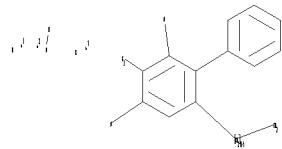
Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stnqen/stndoc/properties.html>

=>  
Uploading C:\Program Files\Stnexp\Queries\10584234A.str

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chain nodes :

7 8 15 16 17 18 19 24 26

ring nodes :

1 2 3 4 5 6 9 10 11 12 13 14

chain bonds :

2-7 3-24 4-8 5-9 6-15 15-26 17-18

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

exact/norm bonds :

2-7 3-24 4-8

exact bonds :

5-9 6-15 15-26 17-18

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

isolated ring systems :

containing 9 :

G1:[\*1], [\*2], [\*3]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
19:CLASS 24:CLASS 26:CLASS

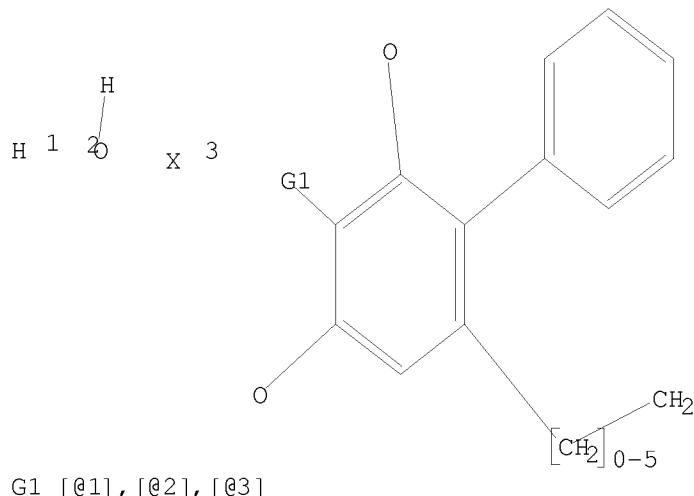
L1 STRUCTURE UPLOADED

=> D L1

L1 HAS NO ANSWERS

L1 STR

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Structure attributes must be viewed using STN Express query preparation.

```
=> S SSS L1 SAM
SAMPLE SEARCH INITIATED 17:02:27 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED -      559 TO ITERATE

100.0% PROCESSED      559 ITERATIONS          38 ANSWERS
SEARCH TIME: 00.00.01

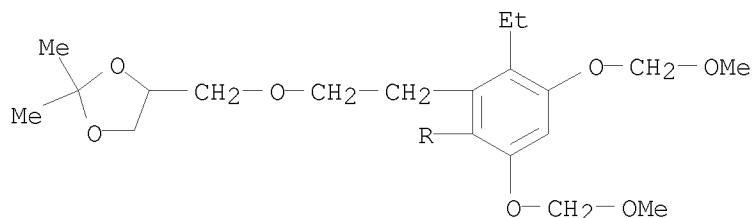
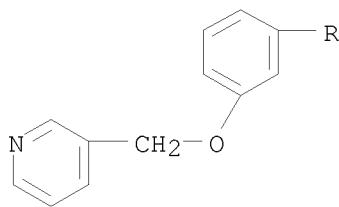
FULL FILE PROJECTIONS:  ONLINE    **COMPLETE**
                        BATCH     **COMPLETE**
PROJECTED ITERATIONS:   9762 TO    12598
PROJECTED ANSWERS:      391 TO     1129
```

L2 38 SEA SSS SAM L1

=> D SCAN

```
L2  38 ANSWERS  REGISTRY COPYRIGHT 2008 ACS on STN
IN  Pyridine, 3-[[[2'-(2-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]ethyl)-3'-
                     ethyl-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]oxy]methyl]-
MF  C32 H41 N O8
```

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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> S SSS L1 FULL  
FULL SEARCH INITIATED 17:02:44 FILE 'REGISTRY'  
FULL SCREEN SEARCH COMPLETED - 11083 TO ITERATE

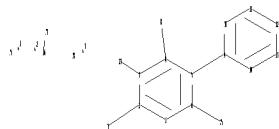
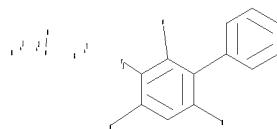
100.0% PROCESSED 11083 ITERATIONS 825 ANSWERS  
SEARCH TIME: 00.00.01

L3 825 SEA SSS FUL L1

=> SAVE L3 KITA10584234/A  
ANSWER SET L3 HAS BEEN SAVED AS 'KITA10584234/A'

=>  
Uploading C:\Program Files\Stnexp\Queries\10584234B.str

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chain nodes :

7 8 15 16 17 18 23 25

ring nodes :

1 2 3 4 5 6 9 10 11 12 13 14

chain bonds :

2-7 3-23 4-8 5-9 6-25 16-17

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

exact/norm bonds :

2-7 3-23 4-8

exact bonds :

5-9 6-25 16-17

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

isolated ring systems :

containing 9 :

G1:[\*1], [\*2], [\*3]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
23:CLASS 25:CLASS

L4 STRUCTURE UPLOADED

=> S L4 SUBSET=L3 SAM

SAMPLE SUBSET SEARCH INITIATED 17:08:29 FILE 'REGISTRY'

SAMPLE SUBSET SCREEN SEARCH COMPLETED - 38 TO ITERATE

100.0% PROCESSED 38 ITERATIONS  
SEARCH TIME: 00.00.01

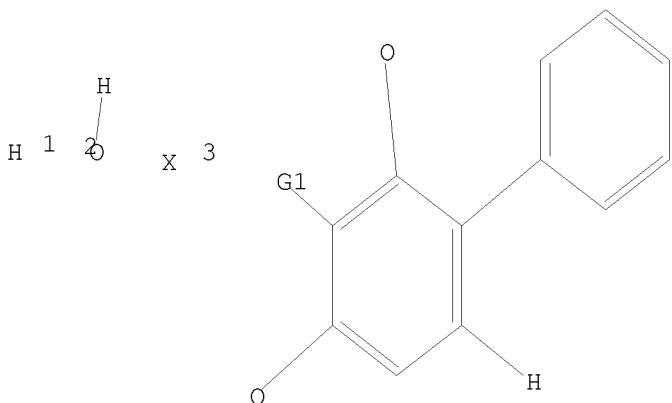
0 ANSWERS

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PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*  
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 391 TO 1129  
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 0 TO 0

L5 0 SEA SUB=L3 SSS SAM L4

=> D L4  
L4 HAS NO ANSWERS  
L4 STR



G1 [@1], [@2], [@3]

Structure attributes must be viewed using STN Express query preparation.

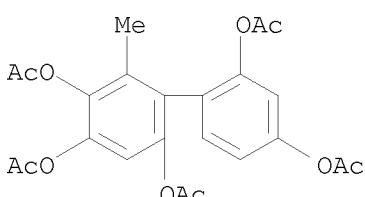
=> S L4 SUBSET=L3 FULL  
FULL SUBSET SEARCH INITIATED 17:08:58 FILE 'REGISTRY'  
FULL SUBSET SCREEN SEARCH COMPLETED - 825 TO ITERATE

100.0% PROCESSED 825 ITERATIONS 3 ANSWERS  
SEARCH TIME: 00.00.01

L6 3 SEA SUB=L3 SSS FUL L4

=> D SCAN L6 3  
'3' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

L6 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 2,2',4,4',5-Biphenylpentol, 6-methyl-, pentaacetate (7CI)  
MF C23 H22 O10



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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG	- RN
SAM	- Index Name, MF, and structure - no RN
FIDE	- All substance data, except sequence data
IDE	- FIDE, but only 50 names
SQIDE	- IDE, plus sequence data
SQIDE3	- Same as SQIDE, but 3-letter amino acid codes are used
SQD	- Protein sequence data, includes RN
SQD3	- Same as SQD, but 3-letter amino acid codes are used
SQN	- Protein sequence name information, includes RN
CALC	- Table of calculated properties
EPROP	- Table of experimental properties
PROP	- EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS	-- Abstract
APPS	-- Application and Priority Information
BIB	-- CA Accession Number, plus Bibliographic Data
CAN	-- CA Accession Number
CBIB	-- CA Accession Number, plus Bibliographic Data (compressed)
IND	-- Index Data
IPC	-- International Patent Classification
PATS	-- PI, SO
STD	-- BIB, IPC, and NCL
IABS	-- ABS, indented, with text labels
IBIB	-- BIB, indented, with text labels
ISTD	-- STD format, indented
OBIB	----- AN, plus Bibliographic Data (original)
OIBIB	----- OBIB, indented with text labels
SBIB	----- BIB, no citations
SIBIB	----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

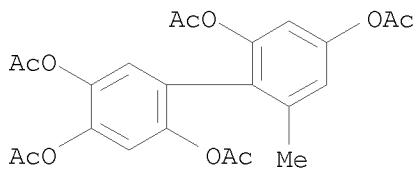
For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.  
HELP FORMATS -- To see detailed descriptions of the predefined formats.

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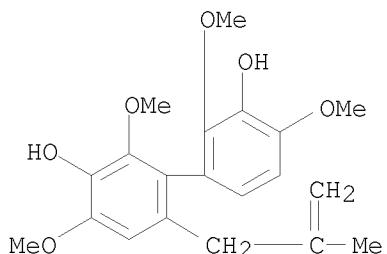
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):3

L6 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 2,2',4,4',5-Biphenylpentol, 6'-methyl-, pentaacetate (7CI)  
MF C23 H22 O10



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L6 3 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6-(2-methyl-2-propenyl)-  
(9CI)  
MF C20 H24 O6

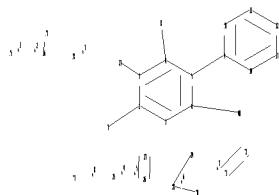
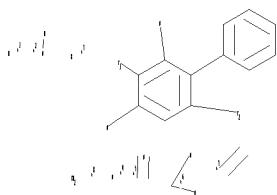


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

ALL ANSWERS HAVE BEEN SCANNED

=>  
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chain nodes :

7 8 15 16 17 18 23 25 26 27 28 29 30 31 32 33 40

ring nodes :

1 2 3 4 5 6 9 10 11 12 13 14

chain bonds :

2-7 3-23 4-8 5-9 6-40 16-17 26-27 28-29 28-30 31-32

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

exact/norm bonds :

2-7 3-23 4-8 6-40 26-27 28-29 28-30

exact bonds :

5-9 16-17 31-32

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

isolated ring systems :

containing 9 :

G1:[\*1],[\*2],[\*3]

G2:[\*4],[\*5],[\*6],[\*7],[\*8]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
23:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS  
32:CLASS 33:CLASS 40:CLASS

L7 STRUCTURE UPLOADED

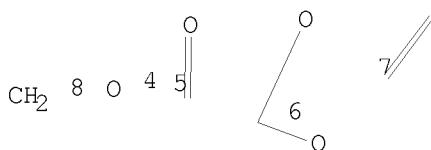
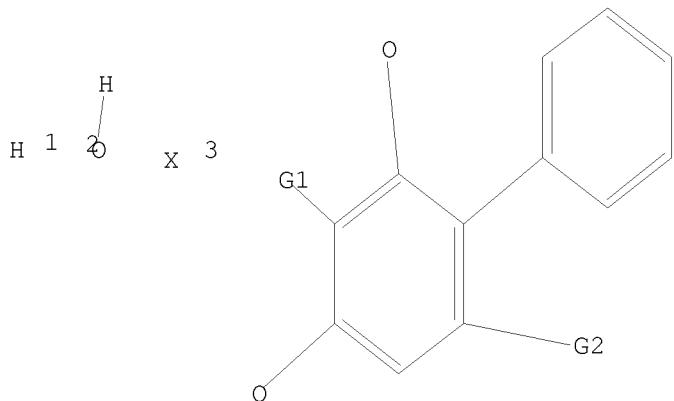
=> D L7

L7 HAS NO ANSWERS

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L7

STR



G1 [01], [02], [03]

G2 [04], [05], [06], [07], [08]

Structure attributes must be viewed using STN Express query preparation.

=> S L7 SUBSET=L3 SAM

SAMPLE SUBSET SEARCH INITIATED 17:20:40 FILE 'REGISTRY'

SAMPLE SUBSET SCREEN SEARCH COMPLETED - 38 TO ITERATE

100.0% PROCESSED 38 ITERATIONS  
SEARCH TIME: 00.00.01

38 ANSWERS

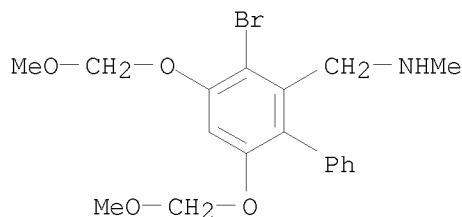
PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*  
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 391 TO 1129  
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 391 TO 1129

L8 38 SEA SUB=L3 SSS SAM L7

=> D SCAN

L8 38 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN [1,1'-Biphenyl]-2-methanamine, 3-bromo-4,6-bis(methoxymethoxy)-N-methyl-  
MF C18 H22 Br N O4

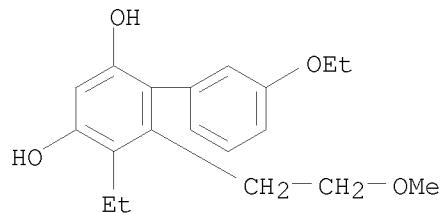
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\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

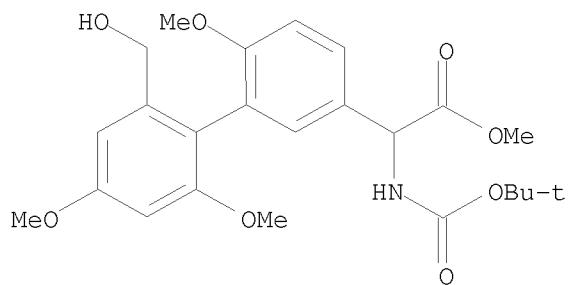
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):2

L8 38 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN [1,1'-Biphenyl]-2,4-diol, 3'-ethoxy-5-ethyl-6-(2-methoxyethyl)-  
MF C19 H24 O4



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L8 38 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN [1,1'-Biphenyl]-3-acetic acid,  $\alpha$ -[(1,1-dimethylethoxy)carbonyl]amino]-2'-(hydroxymethyl)-4',6,6'-trimethoxy-, methyl ester, ( $\alpha$ R,1S)- (9CI)  
MF C24 H31 N O8



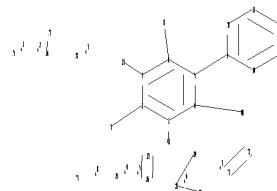
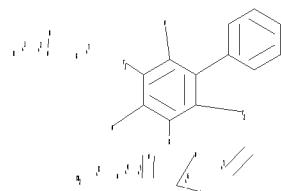
10584234

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=>

Uploading C:\Program Files\Stnexp\Queries\10584234D.str



chain nodes :

7 8 15 16 17 18 23 25 26 27 28 29 30 31 32 33 40 41

ring nodes :

1 2 3 4 5 6 9 10 11 12 13 14

chain bonds :

1-41 2-7 3-23 4-8 5-9 6-40 16-17 26-27 28-29 28-30 31-32

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

exact/norm bonds :

2-7 3-23 4-8 6-40 26-27 28-29 28-30

exact bonds :

1-41 5-9 16-17 31-32

normalized bonds :

1-2 1-6 2-3 3-4 4-5 5-6 9-10 9-14 10-11 11-12 12-13 13-14

isolated ring systems :

containing 9 :

G1:[\*1], [\*2], [\*3]

G2:[\*4], [\*5], [\*6], [\*7], [\*8]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:CLASS 8:CLASS 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:CLASS 16:CLASS 17:CLASS 18:CLASS  
23:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 30:CLASS 31:CLASS  
32:CLASS 33:CLASS 40:CLASS 41:CLASS

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L9 STRUCTURE UPLOADED

=> S L9 SUBSET=L3 SAM  
SAMPLE SUBSET SEARCH INITIATED 17:23:47 FILE 'REGISTRY'  
SAMPLE SUBSET SCREEN SEARCH COMPLETED - 31 TO ITERATE

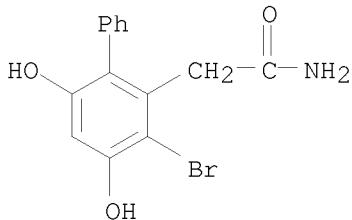
100.0% PROCESSED 31 ITERATIONS 7 ANSWERS  
SEARCH TIME: 00.00.01

PROJECTIONS (WITHIN SPECIFIED SUBSET): ONLINE \*\*COMPLETE\*\*  
PROJECTED ITERATIONS (WITHIN SPECIFIED SUBSET): 286 TO 954  
PROJECTED ANSWERS (WITHIN SPECIFIED SUBSET): 7 TO 298

L10 7 SEA SUB=L3 SSS SAM L9

=> D SCAN

L10 7 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-  
MF C14 H12 Br N O3



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):0

=> S L9 SUBSET=L3 FULL  
FULL SUBSET SEARCH INITIATED 17:24:07 FILE 'REGISTRY'  
FULL SUBSET SCREEN SEARCH COMPLETED - 706 TO ITERATE

100.0% PROCESSED 706 ITERATIONS 149 ANSWERS  
SEARCH TIME: 00.00.01

L11 149 SEA SUB=L3 SSS FUL L9

=> FIL CAPLU  
COST IN U.S. DOLLARS SINCE FILE TOTAL  
ENTRY SESSION  
FULL ESTIMATED COST 284.64 284.85

FILE 'CAPLUS' ENTERED AT 17:31:10 ON 08 MAR 2008  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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FILE COVERS 1907 - 8 Mar 2008 VOL 148 ISS 11  
FILE LAST UPDATED: 7 Mar 2008 (20080307/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> D HIS

    (FILE 'HOME' ENTERED AT 17:01:55 ON 08 MAR 2008)

    FILE 'REGISTRY' ENTERED AT 17:02:02 ON 08 MAR 2008

L1                 STRUCTURE UPLOADED  
L2                 38 S SSS L1 SAM  
L3                 825 S SSS L1 FULL  
                       SAVE L3 KITA10584234/A  
L4                 STRUCTURE UPLOADED  
L5                 0 S L4 SAM SUB=L3  
L6                 3 S L4 FULL SUB=L3  
L7                 STRUCTURE UPLOADED  
L8                 38 S L7 SAM SUB=L3  
L9                 STRUCTURE UPLOADED  
L10                7 S L9 SAM SUB=L3  
L11                149 S L9 FULL SUB=L3

    FILE 'CAPLUS' ENTERED AT 17:31:10 ON 08 MAR 2008

=> S L3  
L12                115 L3

=> S L6  
L13                2 L6

=> S L11  
L14                7 L11

=> S L14 NOT L13  
L15                7 L14 NOT L13

=> S L15 AND (AY<2003 OR PY<2003 OR PRY<2003)  
        4479356 AY<2003  
        22929161 PY<2003  
        3954614 PRY<2003  
L16                5 L15 AND (AY<2003 OR PY<2003 OR PRY<2003)

=> S L12 AND (AY<2003 OR PY<2003 OR PRY<2003)  
        4479356 AY<2003  
        22929161 PY<2003  
        3954614 PRY<2003

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L17 92 L12 AND (AY<2003 OR PY<2003 OR PRY<2003)

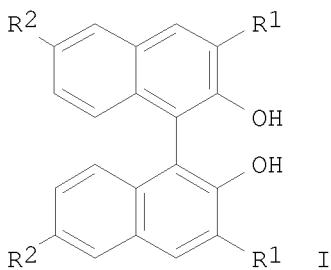
=> S L17 NOT L16

L18 87 L17 NOT L16

=> D IBIB ABS HITSTR L16 1-5

L16 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2003:841679 CAPLUS  
DOCUMENT NUMBER: 141:6927  
TITLE: Chiral resolution of racemic biphenol and binaphthol  
INVENTOR(S): Ding, Kuiling; Du, Haifeng  
PATENT ASSIGNEE(S): Shanghai Institute of Organic Chemistry, Chinese Academy of Sciences, Peop. Rep. China  
SOURCE: Faming Zhanli Shenqing Gongkai Shuomingshu, 25 pp.  
CODEN: CNXKEV  
DOCUMENT TYPE: Patent  
LANGUAGE: Chinese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1385409	A	20021218	CN 2002-111829	20020524 <--
PRIORITY APPLN. INFO.:			CN 2002-111829	20020524 <--
OTHER SOURCE(S):	MARPAT	141:6927		
GI				



AB The racemic title compds. e.g. binaphthols I (R1, R2 = H, alkyl, aryl, halo, formyl, hydroxy, alkoxy, PhS) are chirally separated with chirally resolving agents such as (S)-5-oxo-N-phenyl-2-pyrrolidinonecarboxamide(II) in organic solvent (such as dichloromethane, chloroform, benzene, toluene, THF, ethanol, DMF, etc) at 0-150° for 1-12 h. Thus, refluxing [1,1'-binaphthalene]-2,2'-diol with II in EtOH-THF gave, after cooling, inclusion compound crystal. Refluxing the crystal with acetone gave, after cooling, (R)-I.

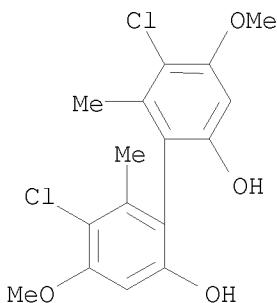
IT 693779-64-5

RL: RCT (Reactant); RACT (Reactant or reagent)  
(chiral resolution of racemic biphenol and binaphthol with pyrrolidinonecarboxamide derivs.)

RN 693779-64-5 CAPLUS

CN [1,1'-Biphenyl]-2,2'-diol, 5,5'-dichloro-4,4'-dimethoxy-6,6'-dimethyl-  
(CA INDEX NAME)

10584234

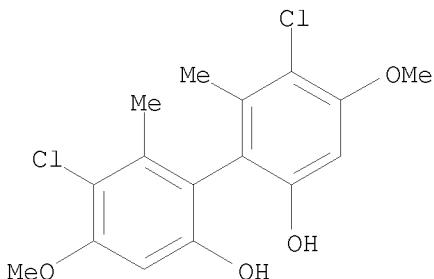


IT 693782-13-7P 693782-14-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(chiral resolution of racemic biphenol and binaphthol with  
pyrrololidinonecarboxamide derivs.)

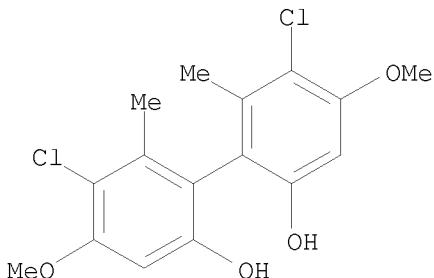
RN 693782-13-7 CAPLUS

CN [1,1'-Biphenyl]-2,2'-diol, 5,5'-dichloro-4,4'-dimethoxy-6,6'-dimethyl-,  
(1S)- (9CI) (CA INDEX NAME)



RN 693782-14-8 CAPLUS

CN [1,1'-Biphenyl]-2,2'-diol, 5,5'-dichloro-4,4'-dimethoxy-6,6'-dimethyl-,  
(1R)- (9CI) (CA INDEX NAME)



L16 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1987:64301 CAPLUS

DOCUMENT NUMBER: 106:64301

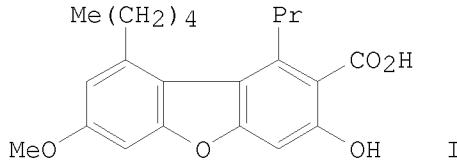
TITLE: Isodidymic acid, a new dibenzofuran from the lichen  
Cladonia didyma

AUTHOR(S): Chester, Douglas O.; Elix, John A.; Kennedy, John M.

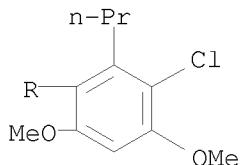
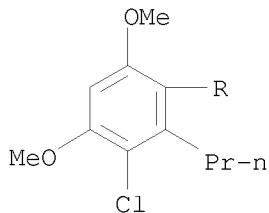
CORPORATE SOURCE: Dep. Chem., Aust. Natl. Univ., Canberra, 2601,  
Australia

10584234

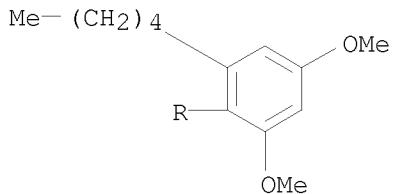
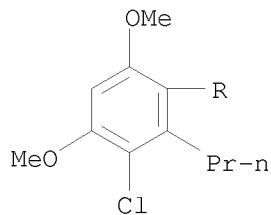
SOURCE: Australian Journal of Chemistry (1986),  
39(11), 1759-64  
CODEN: AJCHAS; ISSN: 0004-9425  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
GI



- AB The dibenzofuran isodidymic acid (I, 3-hydroxy-7-methoxy-9-pentyl-1-propyl-dibenzofuran-2-carboxylic acid) was synthesized and shown to co-occur with barbatic acid, subdidymic acid, and condidymic acid in *C. didyma*.  
IT 106533-84-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 106533-84-0 CAPLUS  
CN 1,1'-Biphenyl, 3,3'-dichloro-4,4',6,6'-tetramethoxy-2,2'-dipropyl- (CA INDEX NAME)



- IT 106533-83-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of and dimethoxypentylpropylbenzofuran formation from)  
RN 106533-83-9 CAPLUS  
CN 1,1'-Biphenyl, 3-chloro-2',4,4',6-tetramethoxy-6'-pentyl-2-propyl- (CA INDEX NAME)



L16 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1971:141448 CAPLUS

DOCUMENT NUMBER: 74:141448

ORIGINAL REFERENCE NO.: 74:22851a,22854a

TITLE: Structure and synthesis of kotanin and desmethylkotanin, metabolites of *Aspergillus glaucus*

AUTHOR(S): Buechi, George; Klaubert, Dieter H.; Shank, R. C.; Weinreb, Steven M.; Wogan, G. N.

CORPORATE SOURCE: Dep. Chem., Massachusetts Inst. Technol., Cambridge, MA, USA

SOURCE: Journal of Organic Chemistry (1971), 36(8), 1143-7

CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

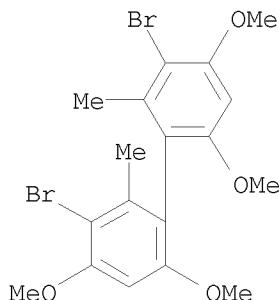
AB Two new metabolites, for which the names kotanin (I) and demethylkotanin (II) are suggested, were isolated from *Aspergillus glaucus* cultures. Spectral data on the metabolites and their basic hydrolysis products were used to derive structures which were confirmed by total synthesis of racemic I. Oxidative coupling of organocuprates served in the synthesis of various biphenyls. Neither of the two metabolites seems to be responsible for the toxicity of the total *A. glaucus* exts.

IT 27921-28-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 27921-28-4 CAPLUS

CN o,o'-Bitolyl, 3,3'-dibromo-4,4',6,6'-tetramethoxy- (8CI) (CA INDEX NAME)



L16 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1970:100359 CAPLUS

DOCUMENT NUMBER: 72:100359

ORIGINAL REFERENCE NO.: 72:18185a,18188a

TITLE: Chemical studies of the proteaceae. IV. Structures of the major phenols of Grevillea striata; a group of novel cyclophanes

AUTHOR(S): Ridley, Damon D.; Ritchie, Ernest; Taylor, Walter Charles

CORPORATE SOURCE: Dep. Org. Chem., Univ. Sydney, Sydney, Australia

SOURCE: Australian Journal of Chemistry (1970),  
23(1), 147-83

CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB Attempts to sep. the major constituents of the phenolic fraction of the ether extract of the wood of *G. striata* were unsuccessful, but by chemical degradation and spectroscopic methods the structures of 4 of the components were deduced. They were mono- and di-Me ethers of 17,19,22,24-tetrahydroxy(14-p-O-O)cyclophane (I) with a double bond at either of 2 positions in the aliphatic chain. The new ring system was given the trivial name "turriane." Evidence that a 5th and a 6th component were derivs. with a saturated chain, and a 7th was a derivative of a double homolog of turriane, was obtained. Synthetic expts. connected with the structure determination, and on the synthesis of tetrahydroxyturriane (I)

are

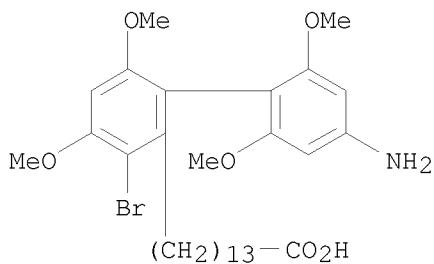
described. Possible biogenetic routes to striatol and the cyclophanes are discussed.

IT 26050-54-4P 27828-68-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

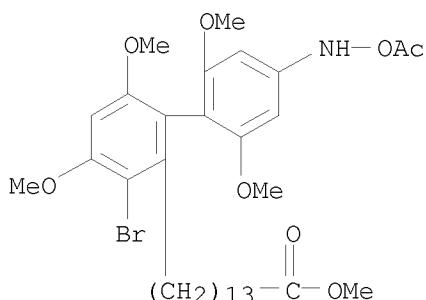
RN 26050-54-4 CAPLUS

CN 2-Biphenyltetradecanoic acid, 4'-amino-3-bromo-2',4,6,6'-tetramethoxy-(8CI) (CA INDEX NAME)



RN 27828-68-8 CAPLUS

CN 2-Biphenyltetradecanoic acid, 4'-(acetoxymino)-3-bromo-2',4,6,6'-tetramethoxy-, methyl ester (8CI) (CA INDEX NAME)



L16 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1959:105499 CAPLUS

DOCUMENT NUMBER: 53:105499

ORIGINAL REFERENCE NO.: 53:18935b-g

TITLE: Chemistry of lichens. XI. Structure of picrolichenic acid

AUTHOR(S): Wachtmeister, Carl A.

CORPORATE SOURCE: Kgl. Tekn. Hogskolan, Stockholm

SOURCE: Acta Chemica Scandinavica (1958), 12, 147-64

CODEN: ACHSE7; ISSN: 0904-213X

DOCUMENT TYPE: Journal

LANGUAGE: English

GI For diagram(s), see printed CA Issue.

AB cf. C.A. 52, 12836f. Picrolichenic acid (I), prisms, m. 187-90° (decomposition) (aqueous AcOH), an intensely bitter compound isolated (5-7% yield)

from the dry powdered crustose lichen *Pertusaria amara*, occurring on the bark of oak and beech trees, by Et<sub>2</sub>O extraction and crystallization in the cold, has beenshown to have the structure (I) by decarboxylation of its piperidine [2 interconvertible forms, m. 169-72° (C<sub>6</sub>H<sub>6</sub>) and 187-9° (decomposition) (aqueous AcOH) (di-Me derivative, prisms, m. 163-5° (MeOH)] to 2,4,6-C<sub>5</sub>H<sub>11</sub>(HO)(MeO)C<sub>6</sub>H<sub>2</sub>C<sub>6</sub>H(C<sub>5</sub>H<sub>11</sub>)(CO<sub>2</sub>H)(OH)<sub>2</sub>-2,3,4,6 (II), m. 145-8° (decomposition) (C<sub>6</sub>H<sub>6</sub>). I was purified by Al<sub>2</sub>O<sub>3</sub> treatment and recrystn. from C<sub>6</sub>H<sub>6</sub> or aqueous AcOH; it is soluble in most common organic solventsexcept C<sub>6</sub>H<sub>6</sub> and petr. ether. Brief (1 min.) treatment of I with CH<sub>2</sub>N<sub>2</sub> in the cold gave Me picrolichenate, needles, m. 102-3.5° (MeOH), while prolonged (overnight) methylation with CH<sub>2</sub>N<sub>2</sub> gave Me O-

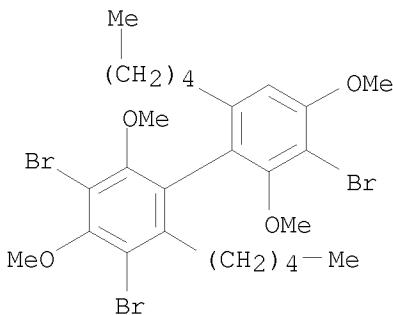
methylpicrolichenate, needles, m. 80-2° (C<sub>6</sub>H<sub>14</sub>). Simultaneous decarboxylation and demethylation of II gives 2,2'-diamyl-4,4',6,6'-tetrahydroxybiphenyl (III), needles, m. 180-1° (glacial AcOH) (tetra-Me ether, m. 34.5-5.5° (MeOH); dibromo derivative, m. 119.5-20.5° (glacial AcOH); tribromo derivative, m. 106-7° (glacial AcOH); tetrabromo derivative, m. 97-8° (glacial AcOH)). III was identified by dehydration with ZnCl<sub>2</sub> at 240-50° to 3,7-dihydroxy-1,9-diamyldibenzofuran (IV), m. 124-5° (C<sub>6</sub>H<sub>6</sub>-petr. ether), which was methylated [di-Me ether of IV, needles, m. 72-3° (aqueous AcOH)] and oxidized by 20% KMnO<sub>4</sub> solution to 3,7-dimethoxydibenzofuran-1,9-dicarboxylic acid [di-Me ether, needles, m. 191-3.5° (EtOH)]. Infrared and ultraviolet absorption spectra further support the structures given. The unique structure of I combines features of the depsidones and of usnic acid and is comparable to the fungal metabolite griseofulvin which contains a similar spirocyclic structure. The theory of oxidative coupling of phenols provides a common basis for a rational interpretation of the biosynthesis of dibenzofuran-like compds. from simple phenolic progenitors.

IT 114159-39-6P, Biphenyl, 3,3',5-tribromo-2',4,4'-tetramethoxy-6,6'-dipentyl- 114791-63-8P, Biphenyl, 3,3',5,5'-tetrabromo-2,2',4,4'-tetramethoxy-6,6'-dipentyl-

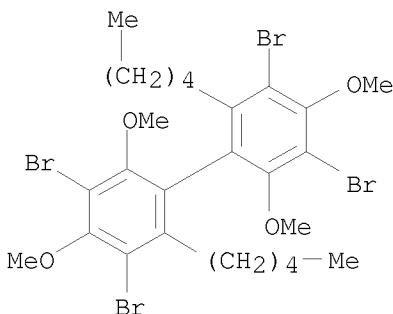
RL: PREP (Preparation)  
(preparation of)

RN 114159-39-6 CAPLUS

CN Biphenyl, 3,3',5-tribromo-2,2',4,4'-tetramethoxy-6,6'-dipentyl- (6CI) (CA INDEX NAME)



RN 114791-63-8 CAPLUS  
CN Biphenyl, 3,3',5,5'-tetrabromo-2,2',4,4'-tetramethoxy-6,6'-dipentyl- (6CI)  
(CA INDEX NAME)



10584234

=> S L17 AND HSP  
22260 HSP  
2702 HSPS  
22817 HSP  
(HSP OR HSPS)  
L19 0 L17 AND HSP

=> S L17 AND (HEAT SHOCK PROTEIN)  
1412313 HEAT  
59576 HEATS  
1429672 HEAT  
(HEAT OR HEATS)  
153880 SHOCK  
11186 SHOCKS  
158896 SHOCK  
(SHOCK OR SHOCKS)  
2124617 PROTEIN  
1491789 PROTEINS  
2477871 PROTEIN  
(PROTEIN OR PROTEINS)  
28468 HEAT SHOCK PROTEIN  
(HEAT(W) SHOCK(W) PROTEIN)  
L20 0 L17 AND (HEAT SHOCK PROTEIN)

=> D L18 80-87

L18 ANSWER 80 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1957:12780 CAPLUS  
DN 51:12780  
OREF 51:2712e-f  
TI Raney nickel reductions. V. General method for the reduction of quinones  
to the corresponding hydrocarbon derivatives  
AU Desai, N. B.; Ramanathan, V.; Venkataraman, K.  
CS Univ. Bombay  
SO Journal of Scientific & Industrial Research (1955), 14B, 330-4  
CODEN: JSIRAC; ISSN: 0022-4456  
DT Journal  
LA Unavailable

L18 ANSWER 81 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1955:84173 CAPLUS  
DN 49:84173  
OREF 49:15844c-i,15845a-i,15846a-c  
TI Chemistry of fungi. XXIV. Formation of biquinones  
AU Dean, F. M.; Osman, A. M.; Robertson, Alexander  
CS Univ. Liverpool, UK  
SO Journal of the Chemical Society (1955) 11-17  
CODEN: JCSOA9; ISSN: 0368-1769  
DT Journal  
LA Unavailable  
OS CASREACT 49:84173

L18 ANSWER 82 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1954:1175 CAPLUS  
DN 48:1175  
OREF 48:229f-i,230a  
TI Antibacterial activity of some organic compounds in vitro. II.  
Antibacterial activity of some organic compounds on Micrococcus pyogenes

10584234

var. aureus, Escherichia coli communior, and Bacillus subtilis  
AU Fujikawa, Fukujiro; Hitosa, Yuhei; Yamaoka, Michiyo; Fujiwara, Yoshiko;  
Nakazawa, Shozo; Omatsu, Tokugoro; Toyoda, Tadaaki  
SO Yakugaku Zasshi (1953), 73, 135-8  
CODEN: YKKZAJ; ISSN: 0031-6903  
DT Journal  
LA Unavailable

L18 ANSWER 83 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1953:59919 CAPLUS  
DN 47:59919  
OREF 47:10172e-f  
TI Antiseptics for foods. LV  
AU Fujikawa, Fukujiro; Tokuoka, Akimasa; Kometani, Eishi; Matsubara, Shoji  
CS Kyoto Coll. Pharm.  
SO Yakugaku Zasshi (1953), 73, 688-90  
CODEN: YKKZAJ; ISSN: 0031-6903  
DT Journal  
LA Unavailable

L18 ANSWER 84 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1952:61282 CAPLUS  
DN 46:61282  
OREF 46:10286g-i,10287a  
TI Effect of some compounds on the tubercle bacilli in vitro. IV  
AU Naito, Masakazu; Shihoda, Akira; Ohta, Masahisa; Fujikawa, Fukujiro;  
Nakajima, Kunio; Fujii, Hiroshi; Tokuoka, Akimasa; Hitosa, Yuhei  
SO Yakugaku Zasshi (1952), 72, 1047-50  
CODEN: YKKZAJ; ISSN: 0031-6903  
DT Journal  
LA Unavailable

L18 ANSWER 85 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1951:41441 CAPLUS  
DN 45:41441  
OREF 45:7100d-i,7101a-d  
TI Didymic acid, a new kind of lichen substance  
AU Shibata, Shoji  
CS Imperial Univ., Tokyo  
SO Acta Phytochim. (Japan) (1944), 14, 9-38  
DT Journal  
LA German

L18 ANSWER 86 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1951:39034 CAPLUS  
DN 45:39034  
OREF 45:6692b-d  
TI Antibacterial effects of lichen substances. II. Antibacterial effects of  
didymic acid and its related compounds  
AU Shibata, Shoji; Miura, Yoshiaki; Sugimura, Hisako; Toyoizumi, Yuri  
CS Univ. Tokyo  
SO Yakugaku Zasshi (1948), 68, 303-5  
CODEN: YKKZAJ; ISSN: 0031-6903  
DT Journal  
LA Unavailable

L18 ANSWER 87 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AN 1921:4721 CAPLUS  
DN 15:4721  
OREF 15:863i,864a-i,865a

10584234

TI Chief constituent of Japanese lac. VII. Urushiol monomethyl ether and the mechanism of the oxidation of urushiol  
AU Majima, Riko; Takayama, Gitaro  
SO Berichte der Deutschen Chemischen Gesellschaft [Abteilung] B: Abhandlungen (1920), 53B, 1907-16  
CODEN: BDCBAD; ISSN: 0365-9488  
DT Journal  
LA Unavailable

=> D HIS

(FILE 'HOME' ENTERED AT 17:01:55 ON 08 MAR 2008)

FILE 'REGISTRY' ENTERED AT 17:02:02 ON 08 MAR 2008

L1 STRUCTURE UPLOADED  
L2 38 S SSS L1 SAM  
L3 825 S SSS L1 FULL  
SAVE L3 KITA10584234/A  
L4 STRUCTURE UPLOADED  
L5 0 S L4 SAM SUB=L3  
L6 3 S L4 FULL SUB=L3  
L7 STRUCTURE UPLOADED  
L8 38 S L7 SAM SUB=L3  
L9 STRUCTURE UPLOADED  
L10 7 S L9 SAM SUB=L3  
L11 149 S L9 FULL SUB=L3

FILE 'CAPLUS' ENTERED AT 17:31:10 ON 08 MAR 2008

L12 115 S L3  
L13 2 S L6  
L14 7 S L11  
L15 7 S L14 NOT L13  
L16 5 S L15 AND (AY<2003 OR PY<2003 OR PRY<2003)  
L17 92 S L12 AND (AY<2003 OR PY<2003 OR PRY<2003)  
L18 87 S L17 NOT L16  
L19 0 S L17 AND HSP  
L20 0 S L17 AND (HEAT SHOCK PROTEIN)

=> D ABS IBIB HITSTR L18 1-87

L18 ANSWER 1 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AB The subject invention concerns a method of inhibiting respiratory syncytial virus (RSV) infection in a patient by decreasing the endogenous protein kinase C (PKC) activity within the patient. Preferably, the preventative and therapeutic methods of the present invention involve administering a PKC inhibitor, to a patient in need thereof. The present inventor has determined that decreasing normal endogenous PKC activity is inhibitory to RSV infection of human cells. The subject invention also pertains to pharmaceutical compns. containing a PKC,inhibitor and a pharmaceutically acceptable carrier.

ACCESSION NUMBER: 2004:739747 CAPLUS  
DOCUMENT NUMBER: 141:254523  
TITLE: Protein kinase C as a target for the treatment of respiratory syncytial virus  
INVENTOR(S): Mohapatra, Shyam S.; Vergara, Homero Gabriel San Juan  
PATENT ASSIGNEE(S): USA  
SOURCE: U.S. Pat. Appl. Publ., 24 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent

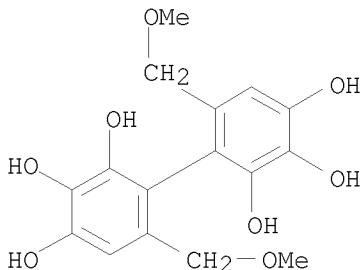
10584234

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2004175384	A1	20040909	US 2003-734548	20031212 <--
PRIORITY APPLN. INFO.:			US 2002-319780P	P 20021213 <--
IT 154675-18-0				
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (protein kinase C as target for treatment of respiratory syncytial virus)				
RN 154675-18-0	CAPLUS			
CN [1,1'-Biphenyl]-2,2',3,3',4,4'-hexol, 6,6'-bis(methoxymethyl)-	(CA INDEX NAME)			



L18 ANSWER 2 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB Regenerative growth of an adult mammalian central nervous system neuron axon subject to growth inhibition by endogenous, myelin growth repulsion factors is promoted by delivering to the axon a therapeutically effective amount of a specific inhibitor of protein kinase C, whereby regenerative growth of the axon is promoted and a resultant promotion of the regenerative growth of the axon is detected.

ACCESSION NUMBER: 2003:737370 CAPLUS

DOCUMENT NUMBER: 139:240392

TITLE: Axon regeneration with PKC inhibitors

INVENTOR(S): He, Zhigang; Koprivica, Vuk; Sivasankaran, Rajeev

PATENT ASSIGNEE(S): Children's Medical Center Corporation, USA

SOURCE: U.S. Pat. Appl. Publ., 8 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003176423	A1	20030918	US 2002-100690	20020314 <--
US 6664266	B2	20031216		
US 2003176424	A1	20030918	US 2003-389082	20030314 <--
US 6815450	B2	20041109		
WO 2003077917	A1	20030925	WO 2003-US7970	20030314 <--
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,				

LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,  
 PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ,  
 UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW  
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,  
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,  
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,  
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  
 AU 2003225807 A1 20030929 AU 2003-225807 20030314 <--  
 US 2005130877 A1 20050616 US 2004-985145 20041109  
 PRIORITY APPLN. INFO.: US 2002-100690 A1 20020314 <--  
 US 2003-389082 A1 20030314  
 WO 2003-US7970 W 20030314

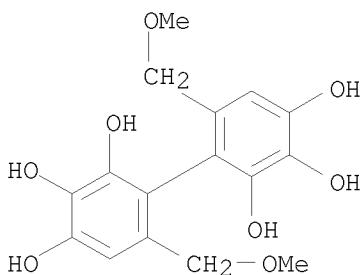
IT 154675-18-0

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL  
 (Biological study); USES (Uses)

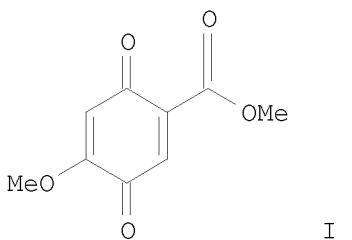
(axon regeneration with PKC inhibitors)

RN 154675-18-0 CAPLUS

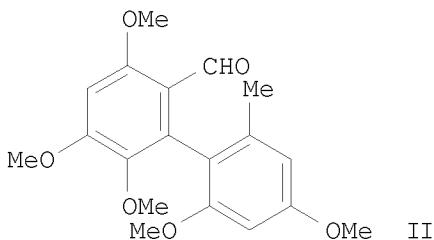
CN [1,1'-Biphenyl]-2,2',3,3',4,4'-hexol, 6,6'-bis(methoxymethyl)- (CA INDEX NAME)



L18 ANSWER 3 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
 GI



I



II

AB Denbinobin was made in seven steps from quinone I. The cyclization of aldehyde II using P4-tBu and the oxidation of a hindered alc. with MnO2 were key steps.

ACCESSION NUMBER: 2002:924955 CAPLUS

DOCUMENT NUMBER: 138:187554

TITLE:

A direct synthesis of denbinobin

AUTHOR(S): Kraus, George A.; Zhang, Ning

CORPORATE SOURCE: Department of Chemistry, Iowa State University, Ames, IA, 50011, USA

SOURCE: Tetrahedron Letters (2002), 43(52), 9597-9599

10584234

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 138:187554

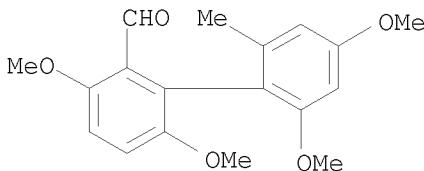
IT 475662-17-0P 498572-62-6P 498572-64-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn of denbinobin from a quinone via a cyclization of an aldehyde and oxidation of a hindered alc. with MnO<sub>2</sub>)

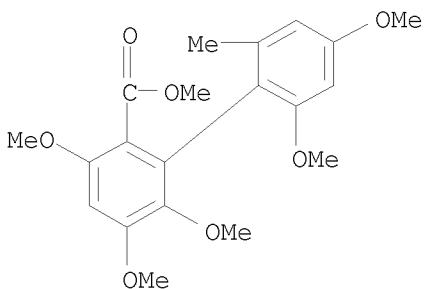
RN 475662-17-0 CAPLUS

CN [1,1'-Biphenyl]-2-carboxaldehyde, 2',3,4',6-tetramethoxy-6'-methyl- (CA INDEX NAME)



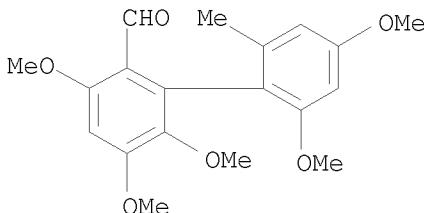
RN 498572-62-6 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 2',3,4',5,6-pentamethoxy-6'-methyl-, methyl ester (CA INDEX NAME)



RN 498572-64-8 CAPLUS

CN [1,1'-Biphenyl]-2-carboxaldehyde, 2',3,4',5,6-pentamethoxy-6'-methyl- (CA INDEX NAME)



REFERENCE COUNT:

14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

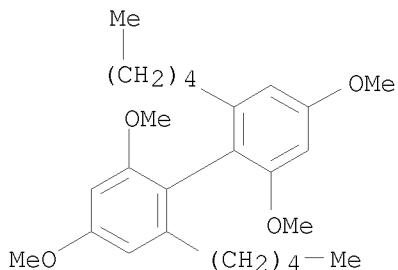
L18 ANSWER 4 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB A review describes several methods for the synthesis of dibenzofurans.

10584234

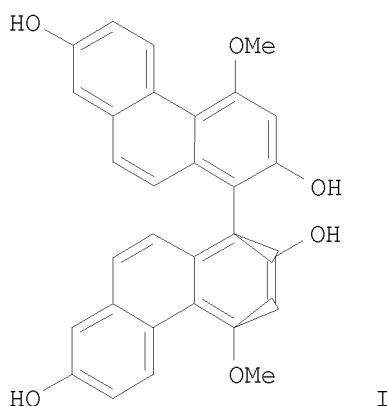
These approaches involve the synthesis of the furan ring, annulation of benzo[b]furans, i.e., creation of one of the benzenoid rings of dibenzofurans, or the rearrangement of other ring systems to give the dibenzofuran skeleton.

ACCESSION NUMBER: 2002:861045 CAPLUS  
DOCUMENT NUMBER: 139:214241  
TITLE: Product class 3: dibenzofurans  
AUTHOR(S): Jones, K.  
CORPORATE SOURCE: School of Applied Chemistry, Kingston University,  
Surrey, KT1 2EE, UK  
SOURCE: Science of Synthesis (2001), 10, 131-154  
CODEN: SSCYJ9  
PUBLISHER: Georg Thieme Verlag  
DOCUMENT TYPE: Journal; General Review  
LANGUAGE: English  
IT 79987-64-7  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(methods for synthesizing dibenzofurans)  
RN 79987-64-7 CAPLUS  
CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dipentyl- (CA INDEX NAME)



REFERENCE COUNT: 90 THERE ARE 90 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 5 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



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AB A naturally occurring 1,1'-biphenanthrene, blestriarene C (I), was prepared and its absolute stereochem. was determined to be Sa-(-) by an empirical method,

during which the compound was found to undergo rapid photoracemization even under ambient light exposure.

ACCESSION NUMBER: 2002:735192 CAPLUS

DOCUMENT NUMBER: 138:89612

TITLE: First determination of the absolute stereochemistry of a naturally occurring 1,1'-biphenanthrene, (-)-blestriarene C, and its unexpected photoracemization

AUTHOR(S): Hattori, Tetsutaro; Shimazumi, Yuhi; Yamabe, Osamu; Koshiishi, Eiji; Miyano, Sotaro

CORPORATE SOURCE: Department of Biomolecular Engineering, Graduate School of Engineering, Tohoku University, Sendai, 980-8579, Japan

SOURCE: Chemical Communications (Cambridge, United Kingdom) (2002), (19), 2234-2235

CODEN: CHCOFS; ISSN: 1359-7345

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

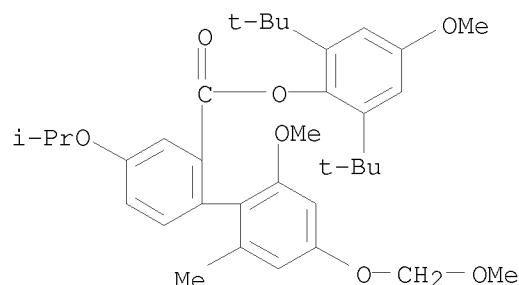
OTHER SOURCE(S): CASREACT 138:89612

IT 478705-43-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(first determination of the absolute stereochem. of a naturally occurring 1,1'-biphenanthrene, (-)-blestriarene C, and its unexpected photoracemization)

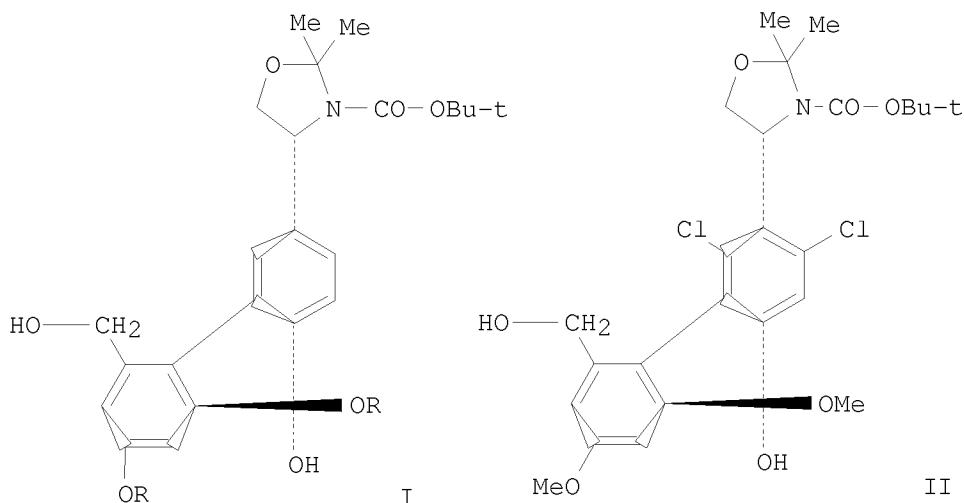
RN 478705-43-0 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 2'-methoxy-4'-(methoxymethoxy)-6'-methyl-4-(1-methylethoxy)-, 2,6-bis(1,1-dimethylethyl)-4-methoxyphenyl ester (CA INDEX NAME)



REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 6 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



AB Using the "lactone concept", differently substituted AB-biaryl fragments (I; R = Me, t-Bu) of vancomycin have been synthesized atroposelectively. Their otherwise configurational instability was remedied by inclusion of two chlorine atoms in the B ring to give (II). Starting from a still configurationally unstable lactone-bridged precursor, we obtained this biaryl with high atroposelectivity (dr 94:6) by ring cleavage with dynamic kinetic diastereomeric resolution

ACCESSION NUMBER: 2002:558442 CAPLUS

DOCUMENT NUMBER: 137:247470

TITLE: On the Verge of Axial Chirality: Atroposelective Synthesis of the AB-Biaryl Fragment of Vancomycin

Bringmann, Gerhard; Menche, Dirk; Muhlbacher, Jorg; Reichert, Matthias; Saito, Nozomi; Pfeiffer, Steven S.; Lipshutz, Bruce H.

CORPORATE SOURCE: Institut fur Organische Chemie, Universitat Wurzburg, Wurzburg, D-97074, Germany

SOURCE: Organic Letters (2002), 4(17), 2833-2836

CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:247470

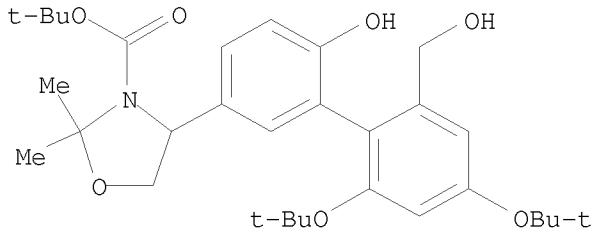
IT 461412-20-4P 461412-23-7P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(atroposelective preparation of the AB-biaryl fragment of vancomycin)

RN 461412-20-4 CAPLUS

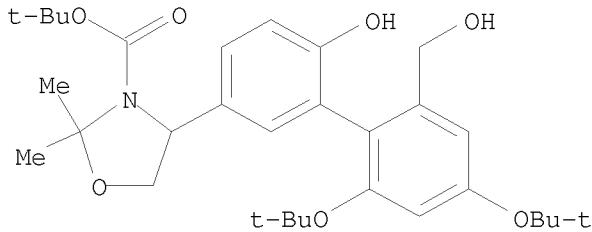
CN 3-Oxazolidinecarboxylic acid, 4-[(1S)-2',4'-bis(1,1-dimethylethoxy)-6-hydroxy-6'-(hydroxymethyl)[1,1'-biphenyl]-3-yl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)

10584234



RN 461412-23-7 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 4-[(1R)-2',4'-bis(1,1-dimethylethoxy)-6-hydroxy-6'-(hydroxymethyl)[1,1'-biphenyl]-3-yl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (CA INDEX NAME)



IT 461031-73-2P 461031-78-7P 461412-17-9P

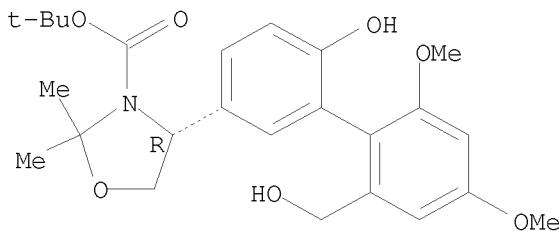
461412-18-0P 461412-19-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and reactions of in the atroposelective preparation of the AB-biaryl  
fragment of vancomycin)

RN 461031-73-2 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 4-[6-hydroxy-2'-(hydroxymethyl)-4',6'-dimethoxy[1,1'-biphenyl]-3-yl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (CA INDEX NAME)

Absolute stereochemistry.

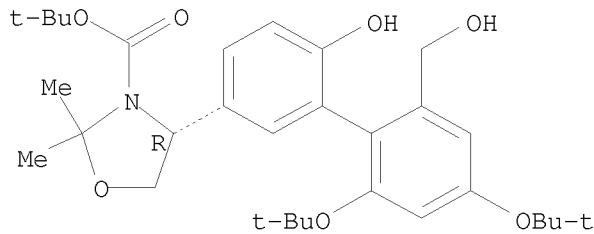


RN 461031-78-7 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 4-[2',4'-bis(1,1-dimethylethoxy)-6-hydroxy-6'-(hydroxymethyl)[1,1'-biphenyl]-3-yl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (CA INDEX NAME)

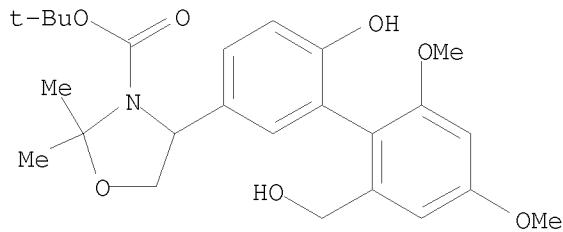
Absolute stereochemistry. Rotation (-).

10584234



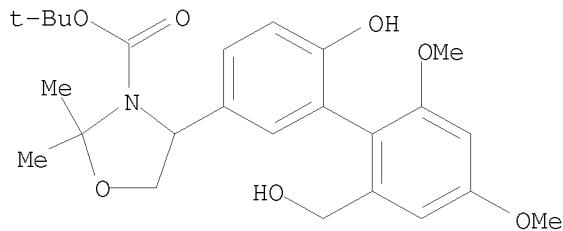
RN 461412-17-9 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 4-[(1S)-6-hydroxy-2'-(hydroxymethyl)-4',6'-dimethoxy[1,1'-biphenyl]-3-yl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)



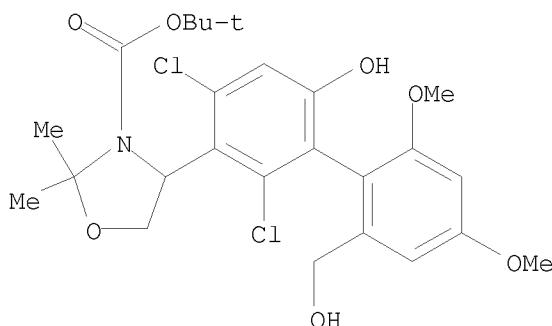
RN 461412-18-0 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 4-[(1R)-6-hydroxy-2'-(hydroxymethyl)-4',6'-dimethoxy[1,1'-biphenyl]-3-yl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)



RN 461412-19-1 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 4-[(1R)-2,4-dichloro-6-hydroxy-2'-(hydroxymethyl)-4',6'-dimethoxy[1,1'-biphenyl]-3-yl]-2,2-dimethyl-, 1,1-dimethylethyl ester, (4R)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 7 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB Phenanthrenes are synthesized by condensation of formylbenzoquinone with a substituted toluene followed by O-methylation and cyclization using the phosphazine base P4-tBu.

ACCESSION NUMBER: 2002:502336 CAPLUS

DOCUMENT NUMBER: 137:384634

TITLE: Synthesis of phenanthrenes from formylbenzoquinone

AUTHOR(S): Kraus, George A.; Hoover, Kim; Zhang, Ning

CORPORATE SOURCE: Department of Chemistry, Iowa State University, Ames, IA, 50011, USA

SOURCE: Tetrahedron Letters (2002), 43(30), 5319-5321

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

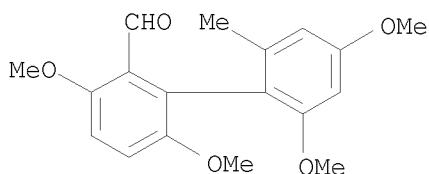
OTHER SOURCE(S): CASREACT 137:384634

IT 475662-17-0

RL: RCT (Reactant); RACT (Reactant or reagent)  
(preparation of substituted phenanthrenes via condensation, O-methylation and cyclization as key steps)

RN 475662-17-0 CAPLUS

CN [1,1'-Biphenyl]-2-carboxaldehyde, 2',3,4',6-tetramethoxy-6'-methyl- (CA INDEX NAME)

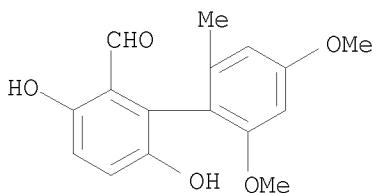


IT 475662-12-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of substituted phenanthrenes via condensation, O-methylation and cyclization as key steps)

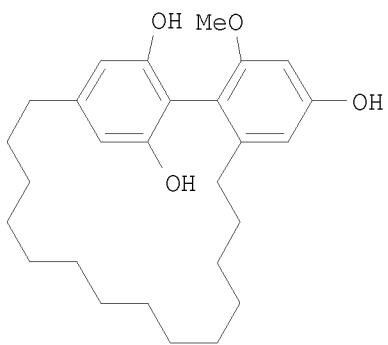
RN 475662-12-5 CAPLUS

CN [1,1'-Biphenyl]-2-carboxaldehyde, 3,6-dihydroxy-2',4'-dimethoxy-6'-methyl- (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 8 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



I

AB The first total synthesis of three naturally occurring cyclophane derivs., e.g I, belonging to the turriane family of natural products is described. Their sterically hindered biaryl entity is formed by reaction of the Grignard reagent derived from an aryl bromide with an oxazoline derivative, and the macrocyclic tether of the targets is efficiently forged by ring closing metathesis. While conventional RCM catalyzed by the ruthenium-carbene complexes invariably leads to the formation of mixts. of both stereoisomers with the undesirable (E)-alkene prevailing, ring closing alkyne metathesis (RCAM) followed by Lindlar reduction of the resulting cycloalkynes opens a convenient and stereoselective entry into this class of compds. RCAM can either be accomplished by using the tungsten alkylidyne complex [(tBuO)3W.tplbond.CCMe3] or by means of a catalyst formed in situ from [Mo(CO)6] and para-trifluoromethylphenol. The latter method is significantly accelerated when carried out under microwave heating. Furthermore, the judicious choice of the protecting groups for the phenolic hydroxy functions turned out to be crucial. PMB-ethers were found to be compatible with the diverse reaction conditions en route to the targets; their cleavage, however, had to be carried out under carefully optimized conditions to minimize competing O-C PMB migration. The prepared turrianes are shown to be potent DNA cleaving agents under oxidative conditions when administered in the presence of copper ions.

ACCESSION NUMBER: 2002:325630 CAPLUS  
DOCUMENT NUMBER: 137:125038  
TITLE: Total synthesis of the turrianes and evaluation of their DNA-cleaving properties  
AUTHOR(S): Furstner, Alois; Stelzer, Frank; Rumbo, Antonio;

CORPORATE SOURCE: Krause, Helga  
 Max-Planck-Institut fur Kohlenforschung, Mulheim,  
 45470, Germany

SOURCE: Chemistry--A European Journal (2002), 8(8),  
 1856-1871  
 CODEN: CEUJED; ISSN: 0947-6539

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

LANGUAGE: English

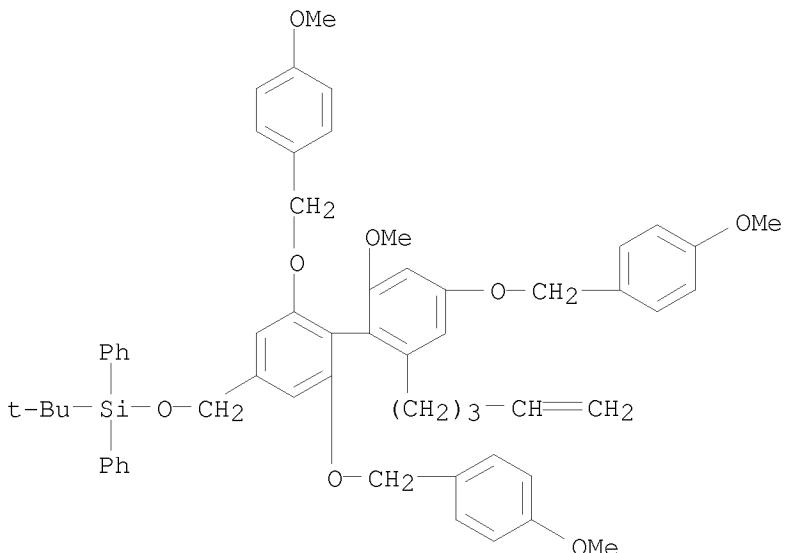
OTHER SOURCE(S): CASREACT 137:125038

IT 444119-63-5P 444119-64-6P 444119-65-7P  
 444119-66-8P 444119-67-9P 444119-68-0P  
 444119-69-1P 444119-86-2P 444119-87-3P  
 444119-88-4P 444119-89-5P 444119-90-8P  
 444119-91-9P 444119-92-0P 444119-93-1P  
 444119-94-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (total synthesis of the turrianes via a key ring closing alkyne metathesis cyclization and evaluation of their DNA-cleaving properties)

RN 444119-63-5 CAPLUS

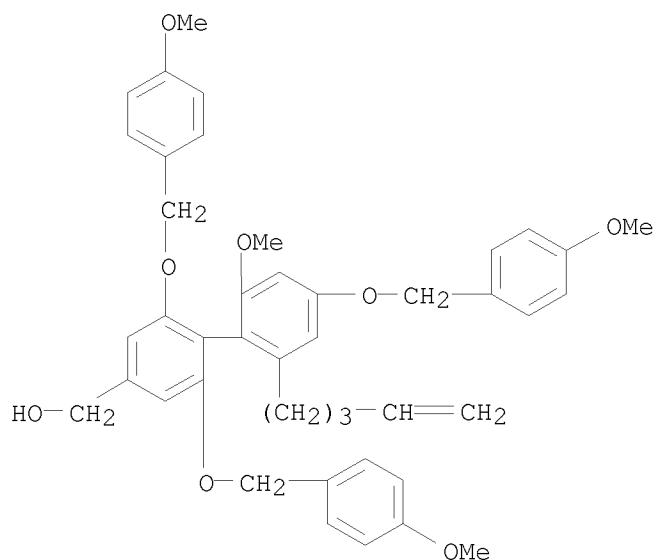
CN Silane, (1,1-dimethylethyl)[[2'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]-6'-(4-pentenyl)[1,1'-biphenyl]-4-yl]methoxy]diphenyl- (9CI) (CA INDEX NAME)



RN 444119-64-6 CAPLUS

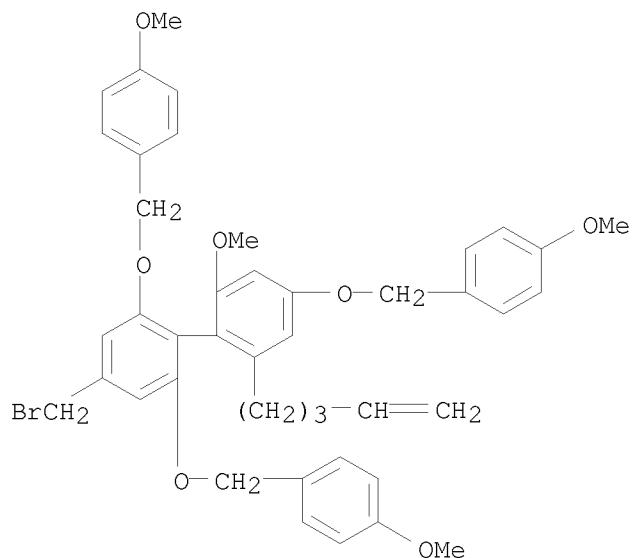
CN [1,1'-Biphenyl]-4-methanol, 2'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]-6'-(4-pentenyl)- (9CI) (CA INDEX NAME)

10584234



RN 444119-65-7 CAPLUS

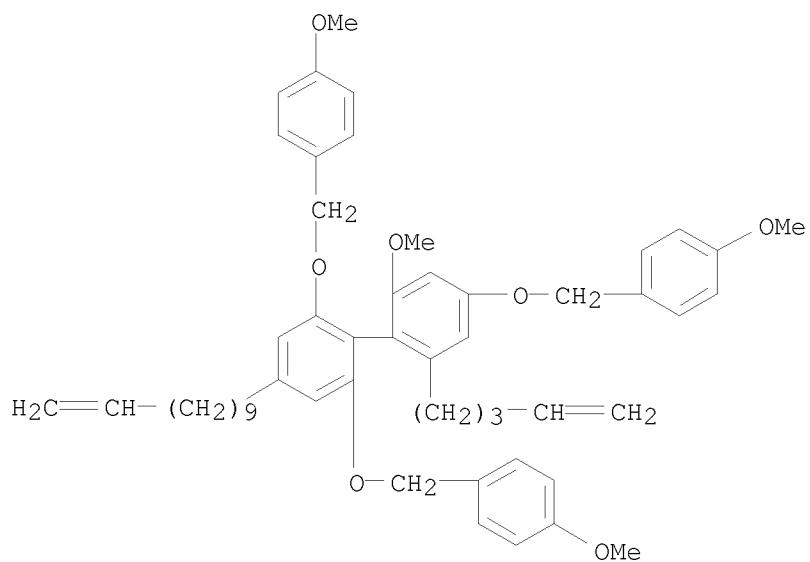
CN 1,1'-Biphenyl, 4-(bromomethyl)-2'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]-6'-(4-pentenyl)- (9CI) (CA INDEX NAME)



RN 444119-66-8 CAPLUS

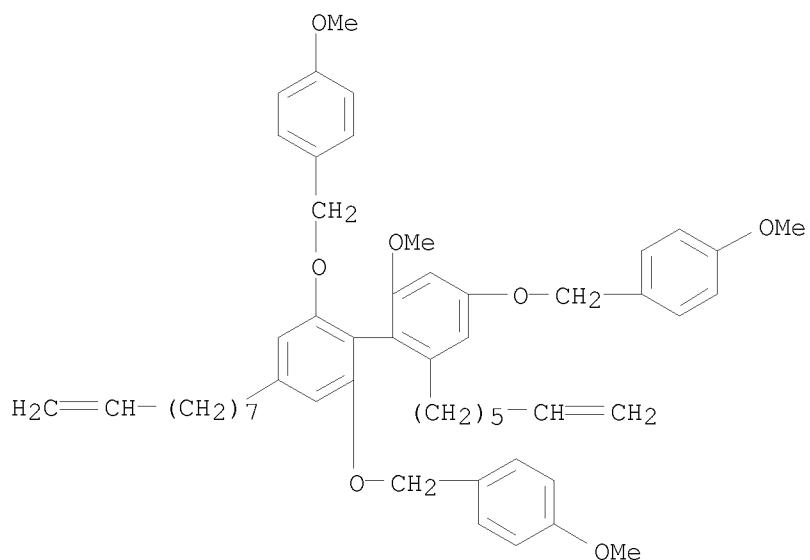
CN 1,1'-Biphenyl, 2-methoxy-2',4,6'-tris[(4-methoxyphenyl)methoxy]-6-(4-pentenyl)-4'-(10-undecenyl)- (9CI) (CA INDEX NAME)

10584234



RN 444119-67-9 CAPLUS

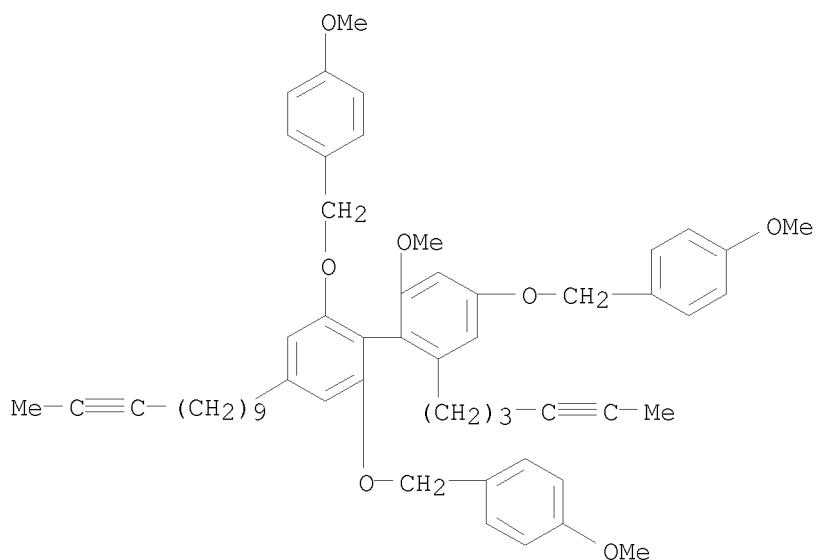
CN 1,1'-Biphenyl, 2-(6-heptenyl)-6-methoxy-2',4,6'-tris[(4-methoxyphenyl)methoxy]-4'-(8-nonenyl)- (9CI) (CA INDEX NAME)



RN 444119-68-0 CAPLUS

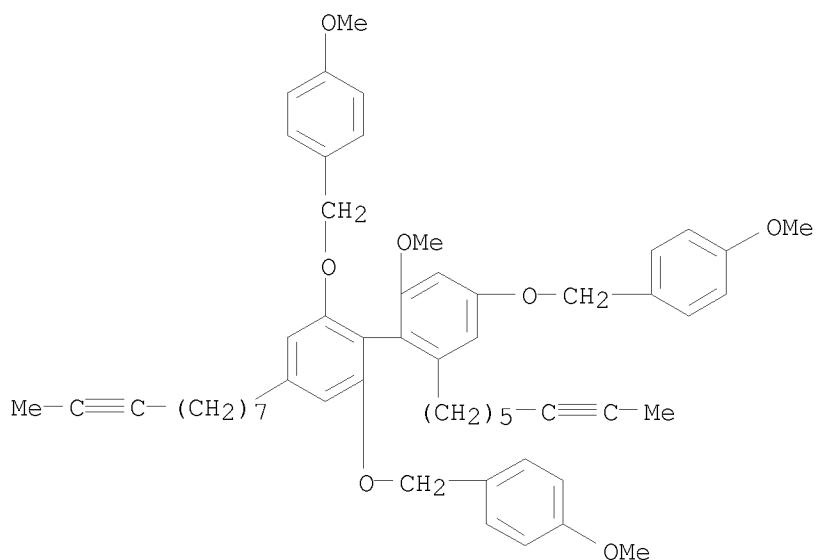
CN 1,1'-Biphenyl, 4-(10-dodecynyl)-2'-(4-hexynyl)-6'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]- (9CI) (CA INDEX NAME)

10584234



RN 444119-69-1 CAPLUS

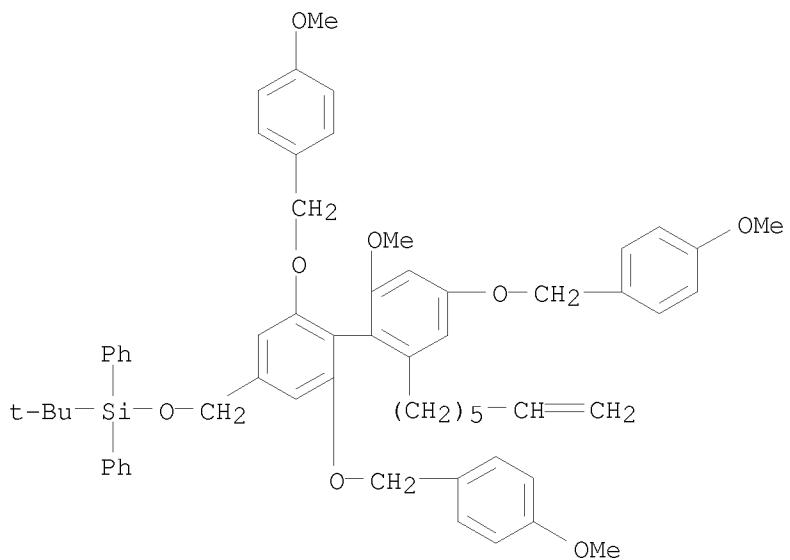
CN 1,1'-Biphenyl, 4-(8-decynyl)-2'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]-6'-(6-octynyl)- (9CI) (CA INDEX NAME)



RN 444119-86-2 CAPLUS

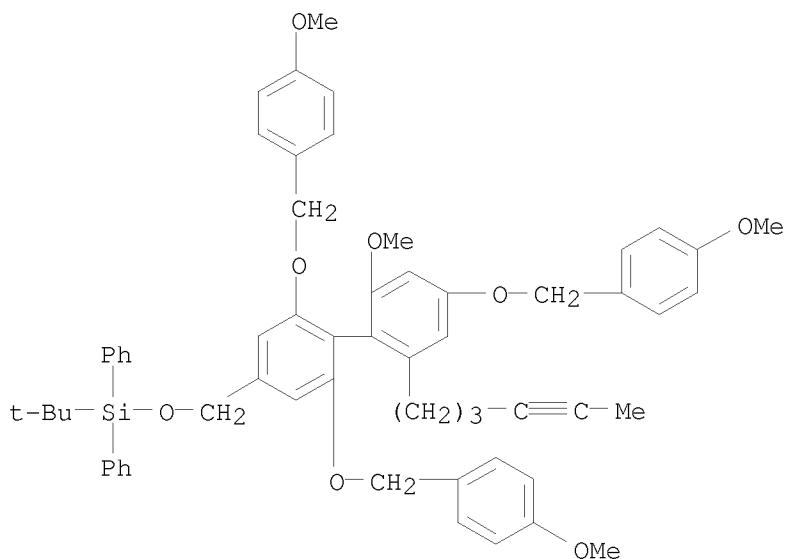
CN Silane, (1,1-dimethylethyl)[[2'-(6-heptenyl)-6'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy][1,1'-biphenyl]-4-yl]methoxy]diphenyl- (9CI) (CA INDEX NAME)

10584234



RN 444119-87-3 CAPLUS

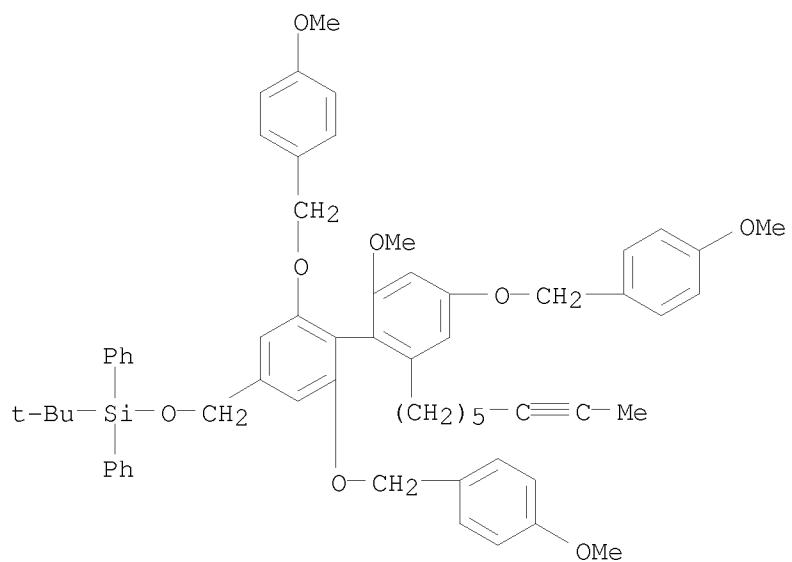
CN Silane, (1,1-dimethylethyl)[[2'-(4-hexynyl)-6'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy][1,1'-biphenyl]-4-yl]methoxy]diphenyl- (9CI) (CA INDEX NAME)



RN 444119-88-4 CAPLUS

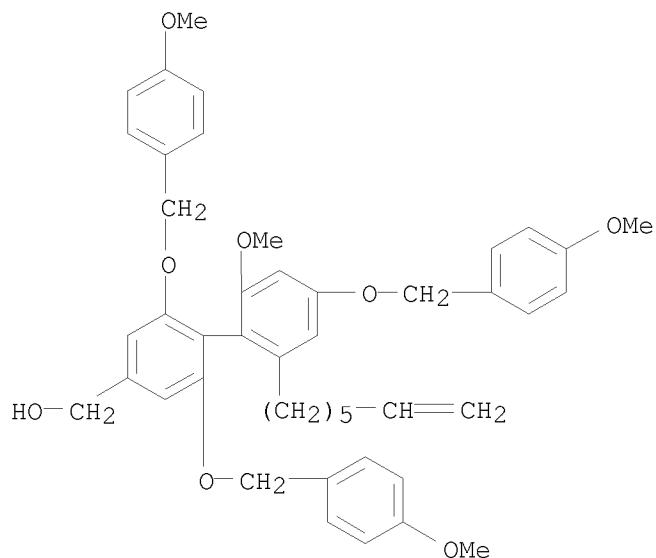
CN Silane, (1,1-dimethylethyl)[[2'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]-6'-(6-octynyl)[1,1'-biphenyl]-4-yl]methoxy]diphenyl- (9CI) (CA INDEX NAME)

10584234



RN 444119-89-5 CAPLUS

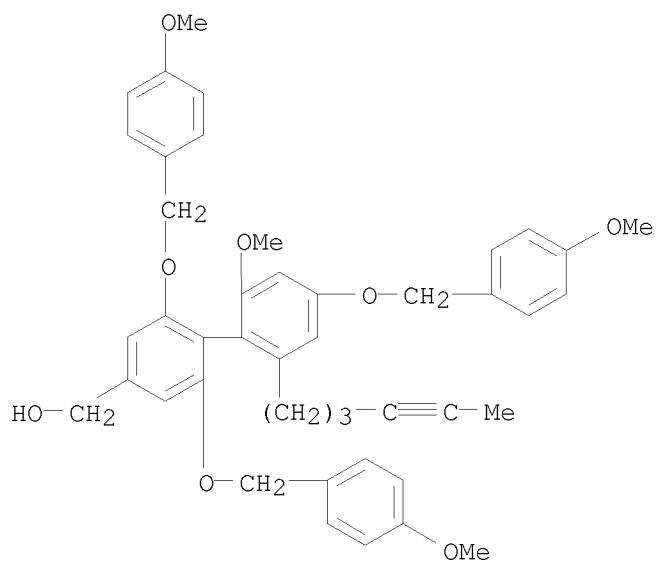
CN [1,1'-Biphenyl]-4-methanol, 2'-(6-heptenyl)-6'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]- (9CI) (CA INDEX NAME)



RN 444119-90-8 CAPLUS

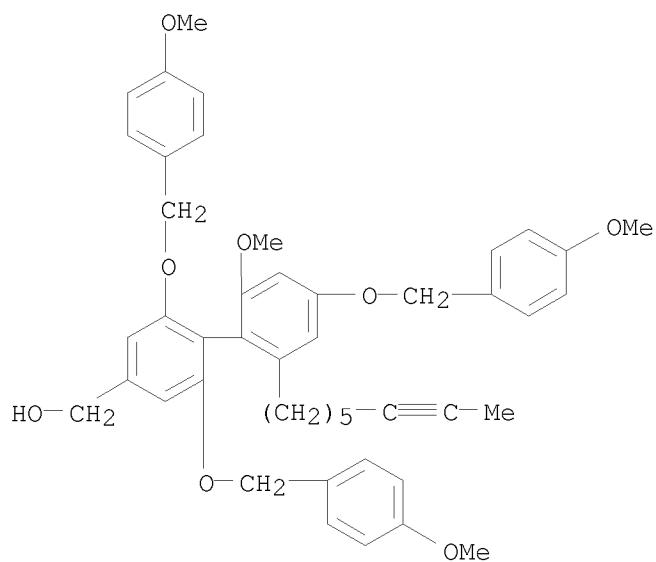
CN [1,1'-Biphenyl]-4-methanol, 2'-(4-hexynyl)-6'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]- (9CI) (CA INDEX NAME)

10584234



RN 444119-91-9 CAPLUS

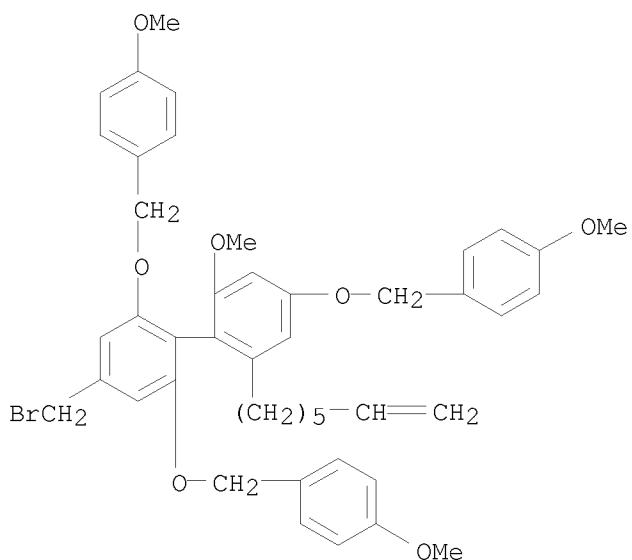
CN [1,1'-Biphenyl]-4-methanol, 2'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]-6'-(6-octynyl)- (9CI) (CA INDEX NAME)



RN 444119-92-0 CAPLUS

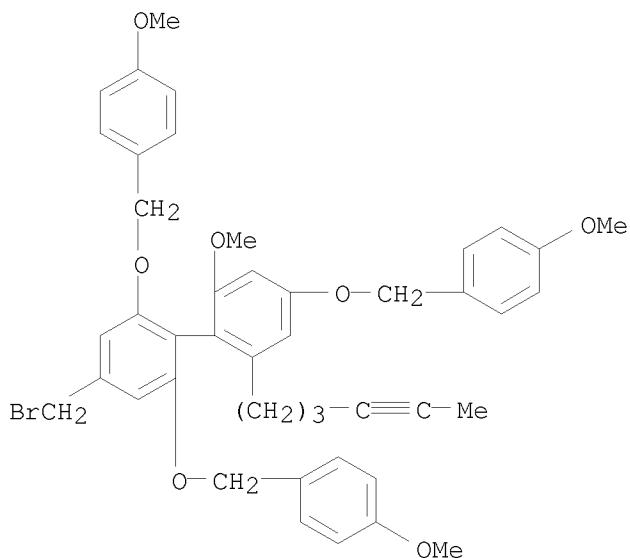
CN 1,1'-Biphenyl, 4-(bromomethyl)-2'-(6-heptenyl)-6'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]- (9CI) (CA INDEX NAME)

10584234



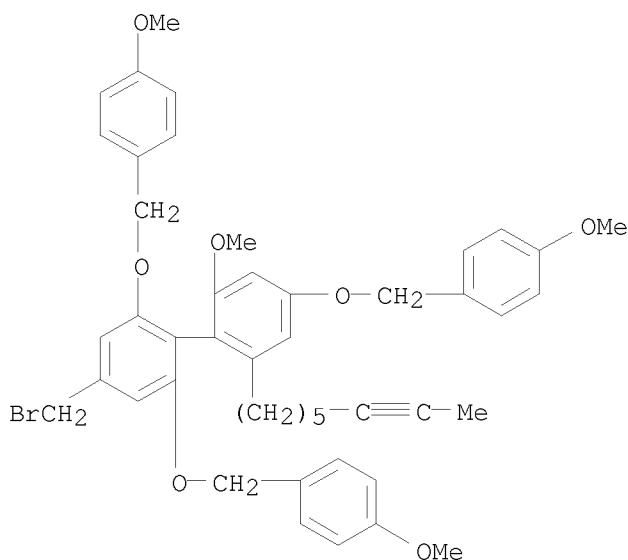
RN 444119-93-1 CAPLUS

CN 1,1'-Biphenyl, 4-(bromomethyl)-2'-(4-hexynyl)-6'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]- (9CI) (CA INDEX NAME)



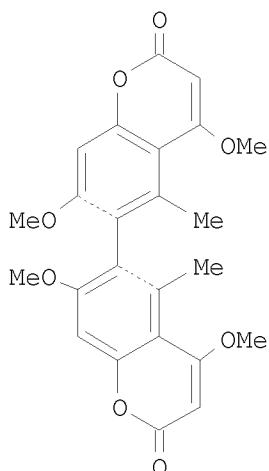
RN 444119-94-2 CAPLUS

CN 1,1'-Biphenyl, 4-(bromomethyl)-2'-methoxy-2,4',6-tris[(4-methoxyphenyl)methoxy]-6'-(6-octynyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 126 THERE ARE 126 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L18 ANSWER 9 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



I

AB The atropo-enantioselective total synthesis of the axially chiral bicoumarin (+)-isokotanin A (I) is described. Key steps were the formation of a configurationally stable seven-membered biaryl lactone and its kinetic resolution by atroposelective ring cleavage. The previous assignment of the absolute configuration (M-atropoisomer) of I (and its synthetic precursors) was confirmed by quantum chemical CD calcns.

ACCESSION NUMBER: 2002:261182 CAPLUS  
DOCUMENT NUMBER: 137:140357

10584234

TITLE: Novel concepts in directed biaryl synthesis, 97.  
Atropo-enantioselective synthesis of the natural  
bicoumarin (+)-isokotanin A via a configurationally  
stable biaryl lactone

AUTHOR(S): Bringmann, Gerhard; Hinrichs, Jurgen; Henschel, Petra;  
Kraus, Jurgen; Peters, Karl; Peters, Eva-Maria

CORPORATE SOURCE: Institut fur Organische Chemie, Universitat Wurzburg,  
Wurzburg, 97074, Germany

SOURCE: European Journal of Organic Chemistry (2002  
(6), 1096-1106

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal

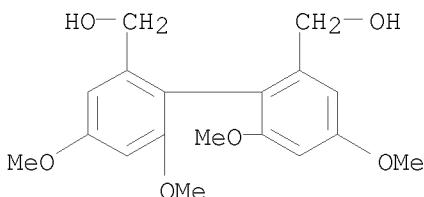
LANGUAGE: English

OTHER SOURCE(S): CASREACT 137:140357

IT 133359-04-3P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin  
A via configurationally stable biaryl lactone)

RN 133359-04-3 CAPLUS

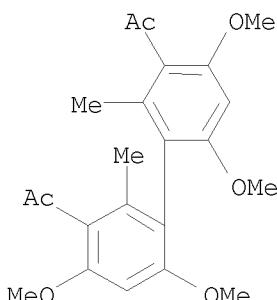
CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy-, (1S)- (9CI) (CA  
INDEX NAME)



IT 177431-41-3P  
RL: BYP (Byproduct); PREP (Preparation)  
(formation during O-methylation of di-O-demethylisokotanin A;  
atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A  
via configurationally stable biaryl lactone)

RN 177431-41-3 CAPLUS

CN Ethanone, 1,1'-(1R)-4,4',6,6'-tetramethoxy-2,2'-dimethyl[1,1'-biphenyl]-  
3,3'-diyl]bis- (9CI) (CA INDEX NAME)



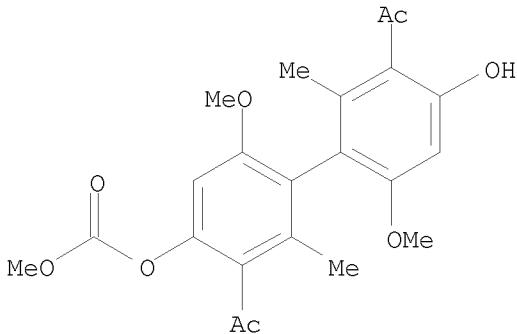
IT 444647-31-8P  
RL: BYP (Byproduct); PREP (Preparation)  
(formation during methoxycarbonylation reaction; atropoenantioselective

10584234

synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

RN 444647-31-8 CAPLUS

CN Carbonic acid, 3,3'-diacetyl-4'-hydroxy-6,6'-dimethoxy-2,2'-dimethyl[1,1'-biphenyl]-4-yl methyl ester, (+)- (9CI) (CA INDEX NAME)



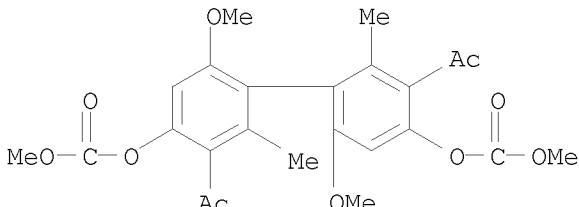
IT 177431-43-5P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and intramol. cyclization of; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

RN 177431-43-5 CAPLUS

CN Carbonic acid, (1R)-3,3'-diacetyl-6,6'-dimethoxy-2,2'-dimethyl[1,1'-biphenyl]-4,4'-diyl dimethyl ester (9CI) (CA INDEX NAME)



IT 444584-51-4P

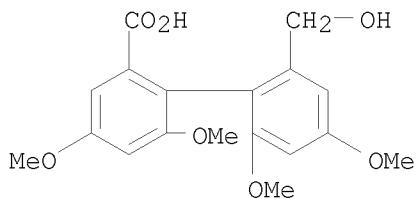
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation and lactonization of; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

RN 444584-51-4 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 2'-(hydroxymethyl)-4,4',6,6'-tetramethoxy- (CA INDEX NAME)

10584234

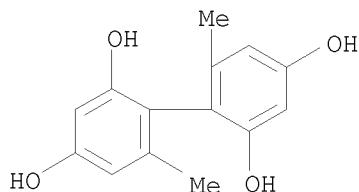


IT 21255-80-1P 54440-25-4P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(preparation and optical rotation of; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

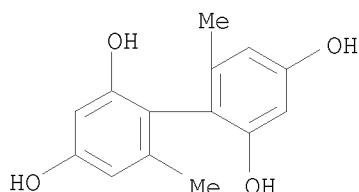
RN 21255-80-1 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)



RN 54440-25-4 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1R)- (9CI) (CA INDEX NAME)

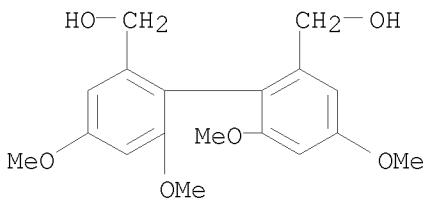


IT 133359-03-2P

RL: PRP (Properties); PUR (Purification or recovery); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oxidation of; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

RN 133359-03-2 CAPLUS

CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy- (CA INDEX NAME)

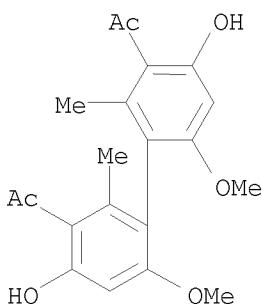


IT 177431-42-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and reaction with chloroformate; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

RN 177431-42-4 CAPLUS

CN Ethanone, 1,1'-(1R)-4,4'-dihydroxy-6,6'-tetramethoxy-2,2'-dimethyl[1,1'-biphenyl]-3,3'-diyl bis- (9CI) (CA INDEX NAME)

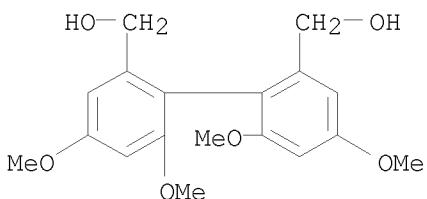


IT 133359-05-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and rend. of; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

RN 133359-05-4 CAPLUS

CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy-, (1R)- (9CI) (CA INDEX NAME)

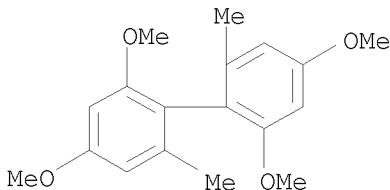


IT 177431-45-7P

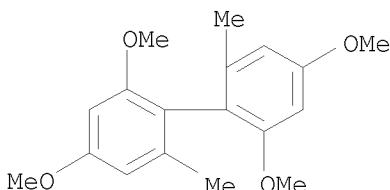
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation, crystal structure and O-demethylation of; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)

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RN 177431-45-7 CAPLUS  
CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl-, (S)- (9CI) (CA  
INDEX NAME)



IT 177431-39-9P  
RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, crystal structure and O-demethylation or acetylation of; atropoenantioselective synthesis of natural bicoumarin (+)-isokotanin A via configurationally stable biaryl lactone)  
RN 177431-39-9 CAPLUS  
CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl-, (1R)- (9CI) (CA  
INDEX NAME)



REFERENCE COUNT: 65 THERE ARE 65 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

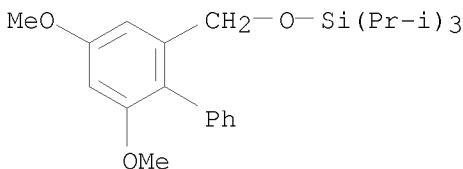
L18 ANSWER 10 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Dilithiation of methoxymethoxyarenetricarbonylchromium complexes with 2.5 equivalent of butyllithium and 6 equivalent of (-)-sparteine followed by enantioselective electrophilic quench gave the planar chiral (R)-complexes in up to 95% ee. This technique was applied to the synthesis of the chromium complexes of biaryl analogs of actinoidinic acid.  
ACCESSION NUMBER: 2001:895528 CAPLUS  
DOCUMENT NUMBER: 136:309987  
TITLE: Dilithiation of arenetricarbonylchromium(0) complexes with enantioselective quench: application to chiral biaryl synthesis  
AUTHOR(S): Tan, Yen-Ling; White, Andrew J. P.; Widdowson, David A.; Wilhelm, Rene; Williams, David J.  
CORPORATE SOURCE: Department of Chemistry, Imperial College of Science, Technology and Medicine, London, SW7 2AZ, UK  
SOURCE: Journal of the Chemical Society, Perkin Transactions 1 (2001), (24), 3269-3280  
CODEN: JCSPCE; ISSN: 1472-7781  
PUBLISHER: Royal Society of Chemistry  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 136:309987  
IT 409360-05-0P 409360-07-2P

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RL: SPN (Synthetic preparation); PREP (Preparation)  
(application to chiral biaryl synthesis via dilithiation of  
arenetricarbonylchromium complexes with enantioselective quench)

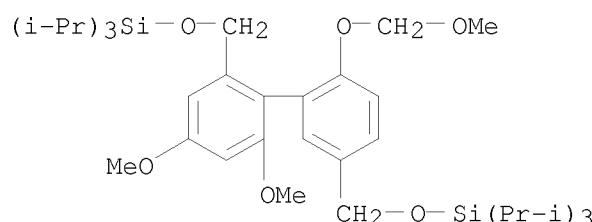
RN 409360-05-0 CAPLUS

CN Silane, [(4,6-dimethoxy[1,1'-biphenyl]-2-yl)methoxy]tris(1-methylethyl)-  
(9CI) (CA INDEX NAME)



RN 409360-07-2 CAPLUS

CN Silane, [[4,6-dimethoxy-6'-(methoxymethoxy)[1,1'-biphenyl]-2,3'-diyl]bis(methyleneoxy)]bis[tris(1-methylethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 11 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB An addnl. author, Evan g. Antoulinakis, has been added to this paper. The Acknowledgment should read 'We thank Dr. Kshitij Thakkar for his initial contributions in the development of the chemical in Schemes 2 and 5 and other relevant work and Dr. Nalin Subasinghe for helpful discussions.".

ACCESSION NUMBER: 2001:614602 CAPLUS

DOCUMENT NUMBER: 138:287357

TITLE: Preparation and photochemical rearrangements of 2-Phenyl-2,5-cyclohexadien-1-ones. An efficient route to highly substituted phenols. [Erratum to document cited in CA135:5419]

AUTHOR(S): Guo, Zihong; Schultz, Arthur G.; Antoulinakis, Evan G.

CORPORATE SOURCE: Rensselaer Polytechnic Institute, Troy, NY,  
12180-3590, USA

SOURCE: Organic Letters (2001), 3(19), 3061  
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

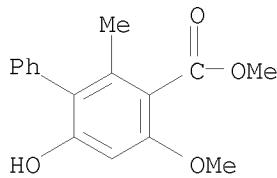
LANGUAGE: English

IT 341522-11-0P 341522-12-1P

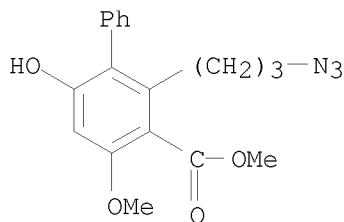
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and photochem. rearrangements of 2-phenyl-2,5-cyclohexadien-1-ones to highly substituted phenols (Erratum))

RN 341522-11-0 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 6-hydroxy-4-methoxy-2-methyl-, methyl ester (CA INDEX NAME)



RN 341522-12-1 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 2-(3-azidopropyl)-6-hydroxy-4-methoxy-,  
methyl ester (CA INDEX NAME)

L18 ANSWER 12 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB The synthesis of 2-phenyl-2,5-cyclohexadien-1-ones from Me 3-phenylbenzoate and Me 2-methoxy-5-phenylbenzoate by the Birch reduction alkylation methodol. is described. These compds. undergo regiospecific photorearrangements at 300 nm to give tetrasubstituted phenols and pentasubstituted phenols, resp. The type A photoproducts resulting from irradiation of the cyclohexadienones at 366 nm have been isolated as .apprx.1:1 diastereomer mixts. When an optimized condition is applied, a single diastereomer of Me 2-methoxy-6-methyl-4-oxo-5-phenylbicyclo[3.1.0]hex-2-ene-6-carboxylate is obtained.

ACCESSION NUMBER: 2001:214554 CAPLUS

DOCUMENT NUMBER: 135:5419

TITLE: Preparation and Photochemical Rearrangements of 2-Phenyl-2,5-cyclohexadien-1-ones. An Efficient Route to Highly Substituted Phenols

AUTHOR(S): Guo, Zihong; Schultz, Arthur G.

CORPORATE SOURCE: Rensselaer Polytechnic Institute, Troy, NY,  
12180-3590, USASOURCE: Organic Letters (2001), 3(8), 1177-1180  
CODEN: ORLEF7; ISSN: 1523-7060

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

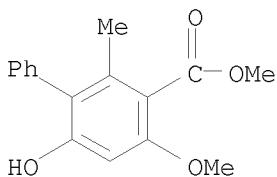
OTHER SOURCE(S): CASREACT 135:5419

IT 341522-11-0P 341522-12-1P

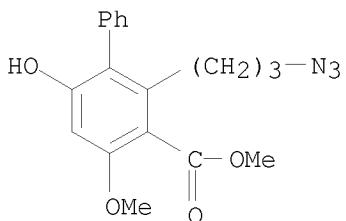
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and photochem. rearrangements of 2-phenyl-2,5-cyclohexadien-1-ones to highly substituted phenols)

RN 341522-11-0 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 6-hydroxy-4-methoxy-2-methyl-, methyl ester (CA INDEX NAME)



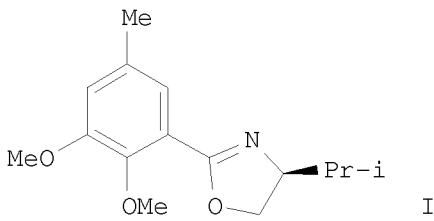
RN 341522-12-1 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 2-(3-azidopropyl)-6-hydroxy-4-methoxy-,  
methyl ester (CA INDEX NAME)

REFERENCE COUNT:

24

THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 13 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
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AB In connection with the synthesis of 4,4',7,7'-tetramethoxy-5,5'-dimethyl-6,8'-bicoumarin (desertorin C) in enantiopure form, the diastereomeric ratios of the products of the reactions between 2-isopropyloxy-6-methoxy-4-methylphenylmagnesium bromide and (4S)-4-isopropyl-2-(2,3,5-trimethoxyphenyl)-4,5-dihydrooxazole, between 2,4-dimethoxy-6-methylphenylmagnesium bromide and (4S)-4-isopropyl-2-(2,3-dimethoxy-5-methylphenyl)-4,5-dihydrooxazol, and between 2,4-dimethoxy-6-(t-butyldimethylsilyloxy)methylphenylmagnesium bromide and the oxazole (I) were explored. The major product of the last mentioned reaction was converted into (S,4S)-4-isopropyl-2-(2'-hydroxymethyl-4',6,6'-trimethoxy-4-methyl-1,1'-biphenyl-6-yl)-4,5-dihydrooxazole, the axial configuration of which was confirmed by single crystal X-ray structural determination. The similar

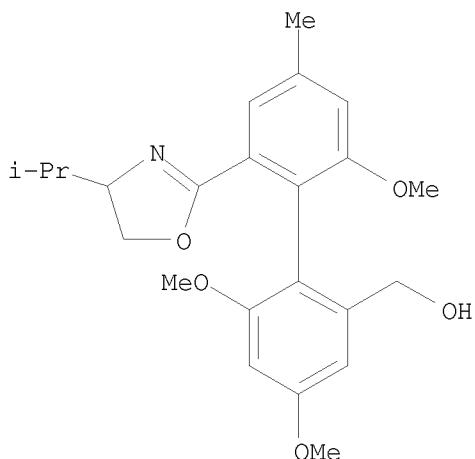
product (S,4S)-2-(2',4',6-trimethoxy-4,6'-dimethyl-1,1'-biphenyl-6-yl)-4,5-dihydrooxazole was converted into (S)-1-(2,4',6'-trimethoxy-4,6'-biphenyl-2-yl)ethanone (II) which furnished (S)-1-(2',4',6-trimethoxy-4,6'-dimethyl-1,1'-biphenyl-2-yl)acetamide (43%) and (S)-2,7'-dimethoxy-3',5',6-trimethyl-spiro[cyclohexa-2,5-diene-1,1'-(1H)isoindole]-4-one (III) (30%)

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on Schmidt rearrangement. III on reduction and methylation regenerated II. The methodol. of Lipschutz was adapted for the synthesis of both enantiomers of 1,1'-(2',4-dihydroxy-6,6'-dimethoxy-2,4'-dimethylbiphenyl-3,3' -diyl)bisethanone which constitutes a formal synthesis of both enantiomers of desertorin C.

ACCESSION NUMBER: 2000:722713 CAPLUS  
DOCUMENT NUMBER: 134:29229  
TITLE: Formal synthesis of both atropisomers of desertorin C and an example of chirality transfer from a biphenyl axis to a spiro center and its reverse  
AUTHOR(S): Baker, Robert W.; Kyasnoor, Rekha V.; Sargent, Melvyn V.; Skelton, Brian W.; White, Allan H.  
CORPORATE SOURCE: School of Chemistry, University of Sydney, Sydney, 2006, Australia  
SOURCE: Australian Journal of Chemistry (2000), 53(6), 487-506  
PUBLISHER: CSIRO Publishing  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 134:29229  
IT 227473-48-5P  
RN 227473-48-5 CAPLUS  
CN [1,1'-Biphenyl]-2-methanol, 2'-[ (4S)-4,5-dihydro-4-(1-methylethyl)-2-oxazolyl]-4,6,6'-trimethoxy-4'-methyl-, (1S)- (9CI) (CA INDEX NAME)

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(crystal structure; formal synthesis of both atropisomers of desertorin C and an example of chirality transfer from a biphenyl axis to a spiro center and its reverse)



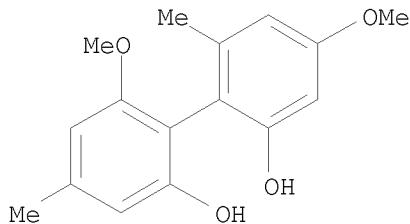
IT 220556-16-1P 220556-17-2P 220556-19-4P  
220556-20-7P 220556-23-0P 227473-47-4P  
227473-49-6P 227473-51-0P 227473-52-1P  
227473-55-4P 312261-05-5P 312261-07-7P  
312261-08-8P 312261-09-9P 312261-10-2P  
312261-11-3P 312261-12-4P 312261-14-6P  
312263-53-9P 312263-54-0P 312263-57-3P  
312264-20-3P 312264-22-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(formal synthesis of both atropisomers of desertorin C and an example

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of chirality transfer from a biphenyl axis to a spiro center and its reverse)

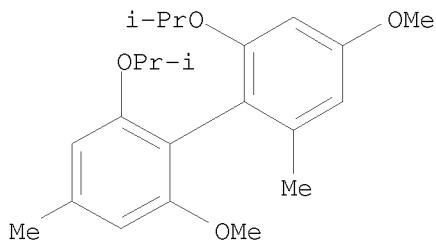
RN 220556-16-1 CAPLUS

CN [1,1'-Biphenyl]-2,2'-diol, 4,6'-dimethoxy-4',6-dimethyl-, (1R)- (9CI) (CA INDEX NAME)



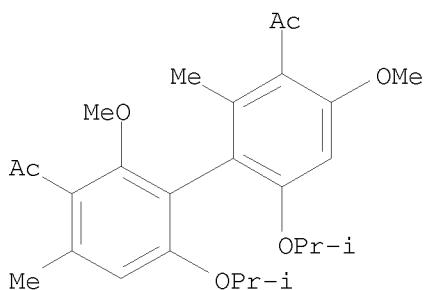
RN 220556-17-2 CAPLUS

CN 1,1'-Biphenyl, 2,4'-dimethoxy-2',4-dimethyl-6,6'-bis(1-methylethoxy)-, (1S)- (9CI) (CA INDEX NAME)



RN 220556-19-4 CAPLUS

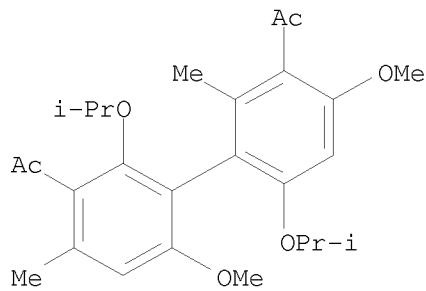
CN Ethanone, 1,1'-[(1S)-2,4'-dimethoxy-2',4-dimethyl-6,6'-bis(1-methylethoxy)[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



RN 220556-20-7 CAPLUS

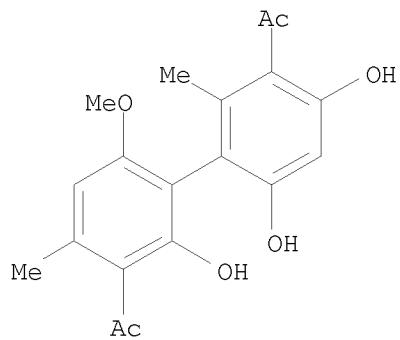
CN Ethanone, 1,1'-[(1S)-4,6'-dimethoxy-2,4'-dimethyl-2',6-bis(1-methylethoxy)[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)

10584234



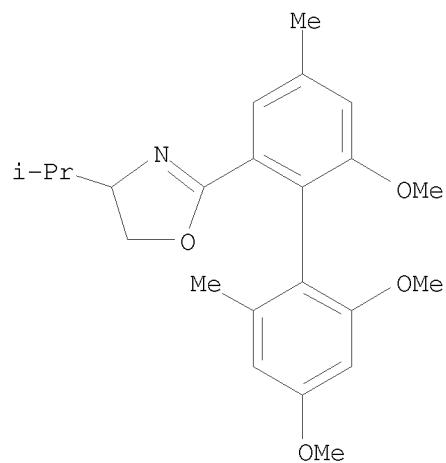
RN 220556-23-0 CAPLUS

CN Ethanone, 1,1'-[ (1R)-2,4',6'-trihydroxy-6-methoxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



RN 227473-47-4 CAPLUS

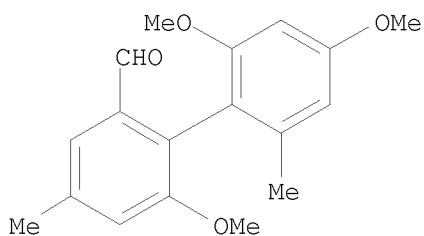
CN Oxazole, 4,5-dihydro-4-(1-methylethyl)-2-[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-, (4S)- (9CI) (CA INDEX NAME)



RN 227473-49-6 CAPLUS

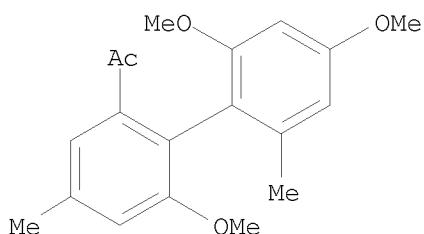
CN [1,1'-Biphenyl]-2-carboxaldehyde, 2',4',6-trimethoxy-4,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)

10584234



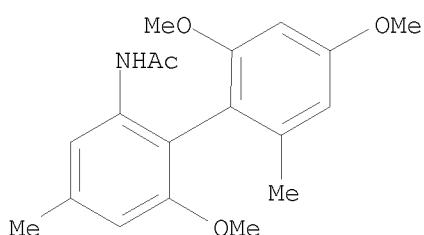
RN 227473-51-0 CAPLUS

CN Ethanone, 1-[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-  
(9CI) (CA INDEX NAME)



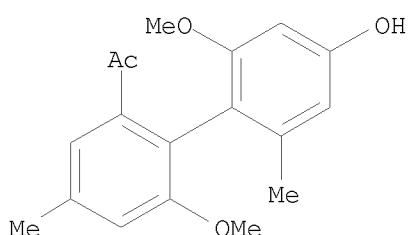
RN 227473-52-1 CAPLUS

CN Acetamide, N-[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-  
(9CI) (CA INDEX NAME)



RN 227473-55-4 CAPLUS

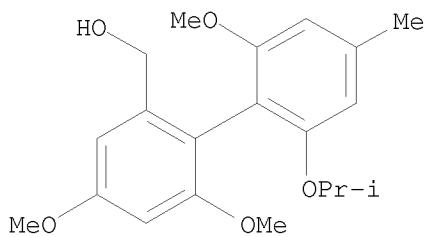
CN Ethanone, 1-[(1S)-4'-hydroxy-2',6-dimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-  
(9CI) (CA INDEX NAME)



RN 312261-05-5 CAPLUS

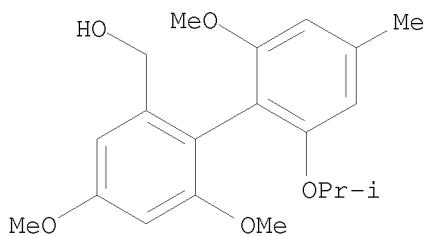
CN [1,1'-Biphenyl]-2-methanol, 2',4,6-trimethoxy-4'-methyl-6'-(1-methylethoxy)-, (1S)- (9CI) (CA INDEX NAME)

10584234



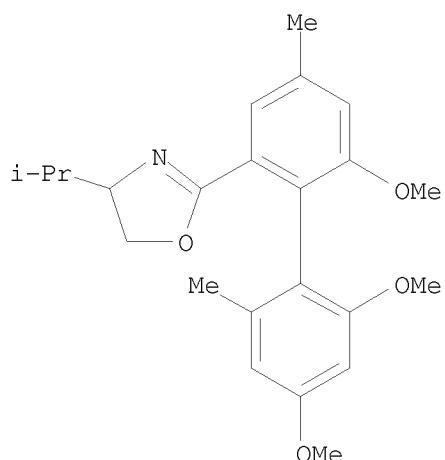
RN 312261-07-7 CAPLUS

CN [1,1'-Biphenyl]-2-methanol, 2',4,6-trimethoxy-4'-methoxy-6'-(1-methylethoxy)-, (1R)- (9CI) (CA INDEX NAME)



RN 312261-08-8 CAPLUS

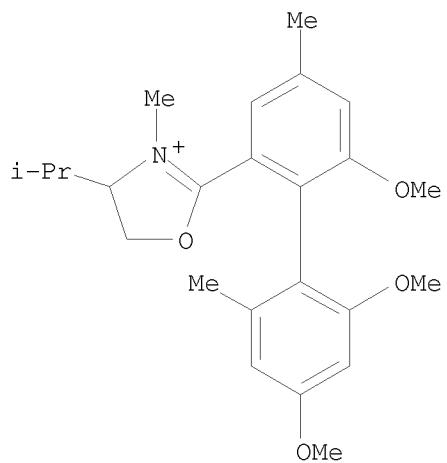
CN Oxazole, 2-[(1R)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-4,5-dihydro-4-(1-methylethyl)-, (4S)- (9CI) (CA INDEX NAME)



RN 312261-09-9 CAPLUS

CN Oxazolium, 4,5-dihydro-3-methyl-4-(1-methylethyl)-2-[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-, iodide, (4S)- (9CI) (CA INDEX NAME)

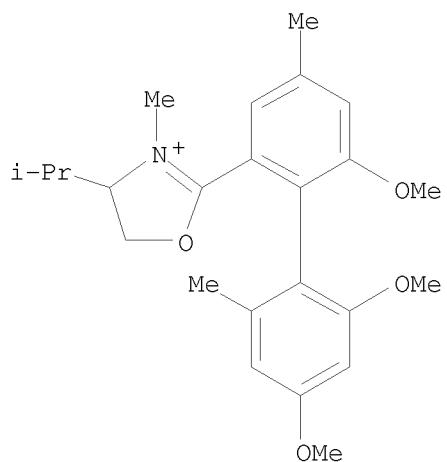
10584234



● I -

RN 312261-10-2 CAPLUS

CN Oxazolium, 4,5-dihydro-3-methyl-4-(1-methylethyl)-2-[[(1R)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-, iodide, (4S)- (9CI) (CA INDEX NAME)

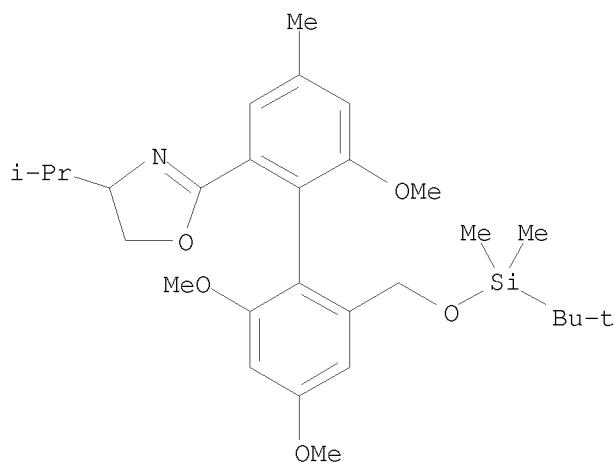


● I -

RN 312261-11-3 CAPLUS

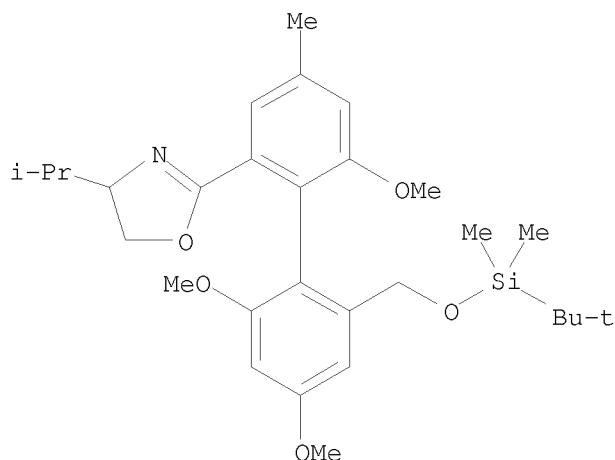
CN Oxazole, 2-[(1S)-2'-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-4',6,6'-trimethoxy-4-methyl[1,1'-biphenyl]-2-yl]-4,5-dihydro-4-(1-methylethyl)-, (4S)- (9CI) (CA INDEX NAME)

10584234



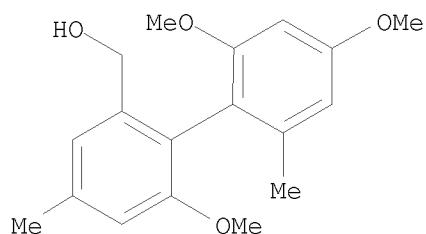
RN 312261-12-4 CAPLUS

CN Oxazole, 2-[{(1R)-2'-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-4',6,6'-trimethoxy-4-methyl[1,1'-biphenyl]-2-yl]-4,5-dihydro-4-(1-methylethyl)-, (4S)- (9CI) (CA INDEX NAME)



RN 312261-14-6 CAPLUS

CN [1,1'-Biphenyl]-2-methanol, 2',4',6-trimethoxy-4,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)

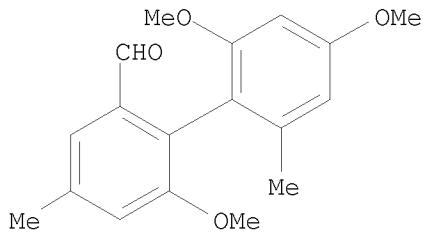


RN 312263-53-9 CAPLUS

CN [1,1'-Biphenyl]-2-carboxaldehyde, 2',4',6-trimethoxy-4,6'-dimethyl-, (1R)-

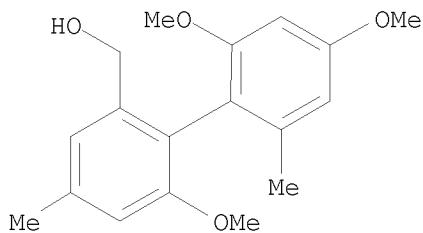
10584234

(9CI) (CA INDEX NAME)



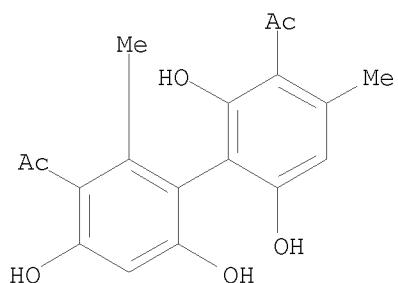
RN 312263-54-0 CAPLUS

CN [1,1'-Biphenyl]-2-methanol, 2',4',6-trimethoxy-4,6'-dimethyl-, (1R)- (9CI)  
(CA INDEX NAME)



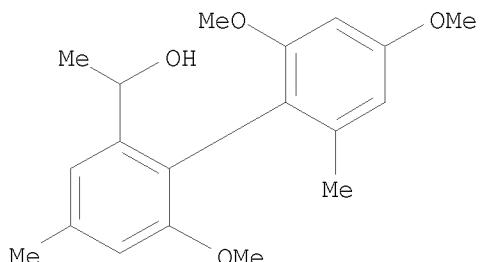
RN 312263-57-3 CAPLUS

CN Ethanone, 1,1'-(1R)-2,4',6,6'-tetrahydroxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



RN 312264-20-3 CAPLUS

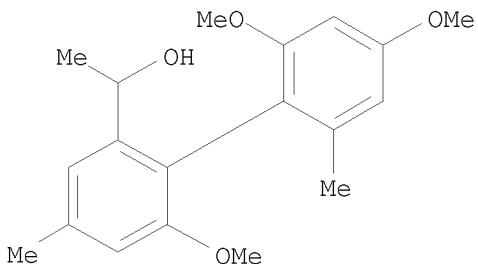
CN [1,1'-Biphenyl]-2-methanol, 2',4',6-trimethoxy-α,4,6'-trimethyl-,  
(αR,1S)- (9CI) (CA INDEX NAME)



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RN 312264-22-5 CAPLUS

CN [1,1'-Biphenyl]-2-methanol, 2',4',6-trimethoxy- $\alpha$ ,4,6'-trimethyl-,  
( $\alpha$ S,1S)- (9CI) (CA INDEX NAME)



IT 220556-08-1P 220556-18-3P 220556-24-1P

227473-53-2P 312261-06-6P 312261-13-5P

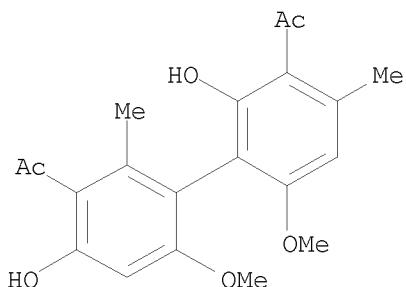
312261-15-7P 312263-56-2P 312264-23-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(formal synthesis of both atropisomers of desertorin C and an example  
of chirality transfer from a biphenyl axis to a spiro center and its  
reverse)

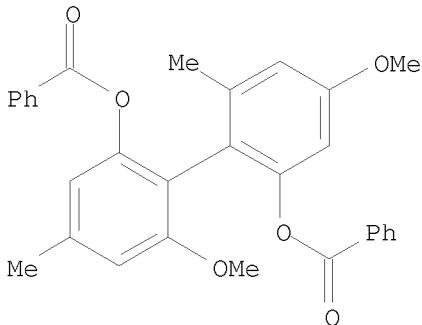
RN 220556-08-1 CAPLUS

CN Ethanone, 1,1'-( $(1S)$ -2,4'-dihydroxy-6,6'-dimethoxy-2',4-dimethyl[1,1'-  
biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



RN 220556-18-3 CAPLUS

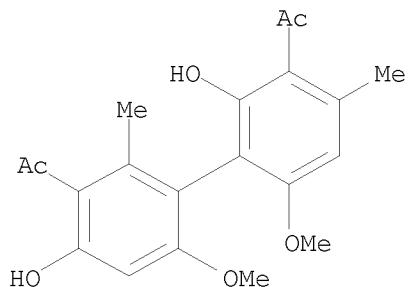
CN [1,1'-Biphenyl]-2,2'-diol, 4,6'-dimethoxy-4',6-dimethyl-, dibenzoate,  
( $1S$ )- (9CI) (CA INDEX NAME)



10584234

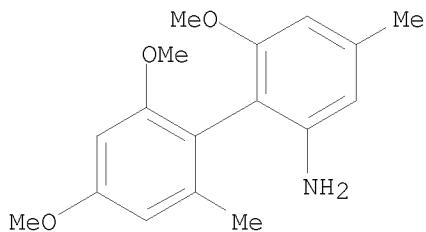
RN 220556-24-1 CAPLUS

CN Ethanone, 1,1'-(1R)-2,4'-dihydroxy-6,6'-dimethoxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



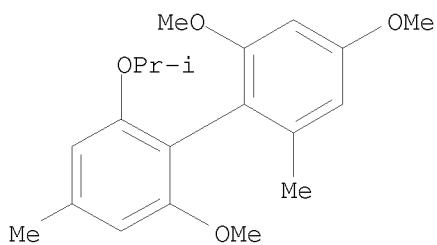
RN 227473-53-2 CAPLUS

CN [1,1'-Biphenyl]-2-amine, 2',4',6-trimethoxy-4,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)



RN 312261-06-6 CAPLUS

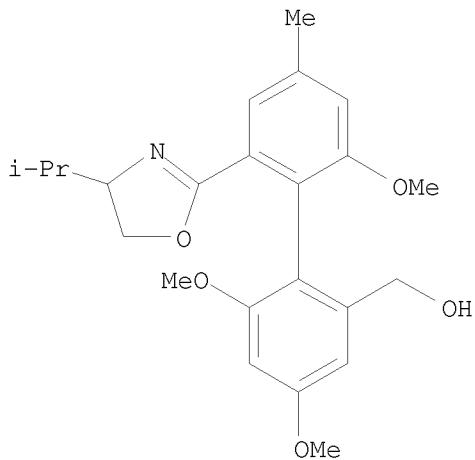
CN 1,1'-Biphenyl, 2,2',4-trimethoxy-4',6-dimethyl-6'-(1-methylethoxy)-, (1S)- (9CI) (CA INDEX NAME)



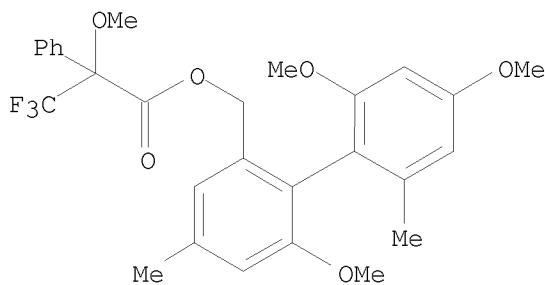
RN 312261-13-5 CAPLUS

CN [1,1'-Biphenyl]-2-methanol, 2'-(4S)-4,5-dihydro-4-(1-methylethyl)-2-oxazolyl]-4,6,6'-trimethoxy-4'-methyl-, (1R)- (9CI) (CA INDEX NAME)

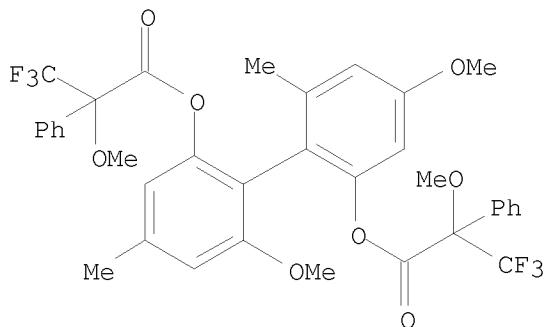
10584234



RN 312261-15-7 CAPLUS  
CN Benzeneacetic acid,  $\alpha$ -methoxy- $\alpha$ -(trifluoromethyl)-,  
[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]methyl ester,  
( $\alpha$ R)- (9CI) (CA INDEX NAME)

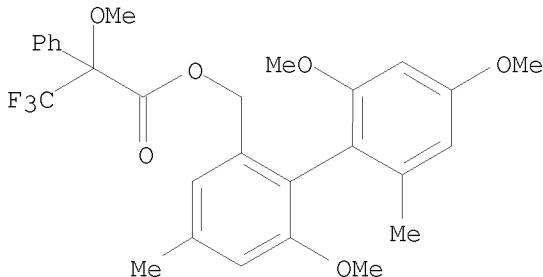


RN 312263-56-2 CAPLUS  
CN Benzeneacetic acid,  $\alpha$ -methoxy- $\alpha$ -(trifluoromethyl)-,  
(1S)-4,6'-dimethoxy-4',6-dimethyl[1,1'-biphenyl]-2,2'-diyl ester,  
( $\alpha$ R, $\alpha'$ R)- (9CI) (CA INDEX NAME)



RN 312264-23-6 CAPLUS  
CN Benzeneacetic acid,  $\alpha$ -methoxy- $\alpha$ -(trifluoromethyl)-,  
[(1R)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]methyl ester,

(αR)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 14 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB The functional disturbance of microvasculature is recognized as an initiating mechanism that underlies the development of various diabetic complications. Although a causal relationship between microvascular leakage and tissue damage has been well documented in diabetic kidneys and eyes, there is a lack of information regarding the barrier function of coronary exchange vessels in the disease state. The aim of the present study was to evaluate the permeability property of coronary microvessels during the early development of exptl. diabetes with a focus on the protein kinase C (PKC)-dependent signaling mechanism. The apparent permeability coefficient of albumin (Pa) was measured in isolated and perfused porcine coronary venules. The administration of high concns. of D-glucose induced a dose-dependent increase in the Pa value, which was prevented by blockage of PKC with its selective inhibitors bisindolylmaleimide and Goe 6976. More importantly, an elevated basal permeability to albumin was observed in coronary venules at the early onset of streptozotocin-induced diabetes. The hyperpermeability was corrected with bisindolylmaleimide and the selective PKC $\beta$  inhibitor hispidin. Concomitantly, protein kinase assay showed a high PKC activity in isolated diabetic venules. Immunoblot anal. of the diabetic heart revealed a significant subcellular translocation of PKC $\beta$ II and PKC $\epsilon$  from the cytosol to the membrane, indicating that the specific activity of these isoforms was preferentially elevated. The results suggest that endothelial barrier dysfunction attributed to the activation of PKC occurs at the coronary exchange vessels in early diabetes.

ACCESSION NUMBER: 2000:668502 CAPLUS

DOCUMENT NUMBER: 133:348557

TITLE: Protein kinase C activation contributes to microvascular barrier dysfunction in the heart at early stages of diabetes

AUTHOR(S): Yuan, Sarah Y.; Ustinova, Elena E.; Wu, Mack H.; Tinsley, John H.; Xu, Wenjuan; Korompai, Ferenc L.; Taulman, Amy C.

CORPORATE SOURCE: Departments of Surgery and Medical Physiology, Cardiovascular Research Institute, Texas A and M University System Health Science Center, Temple, TX, 76504, USA

SOURCE: Circulation Research (2000), 87(5), 412-417

CODEN: CIRUAL; ISSN: 0009-7330

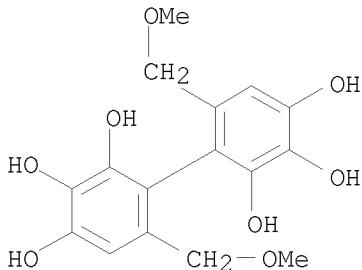
PUBLISHER: Lippincott Williams & Wilkins

DOCUMENT TYPE: Journal

LANGUAGE: English

10584234

IT 154675-18-0  
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)  
(effect on protein kinase C activation in relation to microvascular barrier dysfunction in the heart at early stages of diabetes mellitus)  
RN 154675-18-0 CAPLUS  
CN [1,1'-Biphenyl]-2,2',3,3',4,4'-hexol, 6,6'-bis(methoxymethyl)- (CA INDEX NAME)



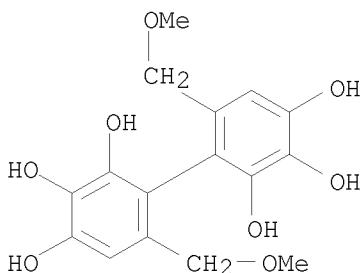
REFERENCE COUNT: 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 15 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Protein kinase C (PKC) isoenzymes constitute a family of at least 12 structurally related serine-threonine kinases that are differentially regulated and localized, and are presumed to mediate distinct intracellular functions. To explore their roles in intact cells, investigators are developing cell-permeable, isoform-selective inhibitors. 2,2',3,3',4,4'-Hexahydroxy-1,1'-biphenyl-6,6'-dimethanol di-Me ether (HBDDE) is reported to be a selective inhibitor of PKC  $\alpha$  and  $\gamma$  with  $IC_{50}$  values of 43 and 50  $\mu M$ , resp., using an in vitro assay. However, data examining the potency and selectivity of HBDDE in intact cells are lacking. Employing rodent cerebellar granule neurons as a model system, we investigated the effects of HBDDE using cell survival as a functional end-point. HBDDE induced an apoptotic form of cell death that was dependent upon protein synthesis and included activation of a terminal executioner of apoptosis, caspase 3. The concentration of HBDDE required for half-maximal cell death was less than 10  $\mu M$  (.apprx.5-fold less than the reported  $IC_{50}$  values for PKC  $\alpha$  and  $\gamma$  in vitro). Furthermore, HBDDE induced apoptosis even after phorbol-ester-mediated down-regulation of PKC  $\alpha$  and  $\gamma$ , indicating that this effect is independent of these isoforms. Consistent with this, 2-[1-(3-dimethylaminopropyl) indol-3-yl]-3-(indol-3-yl)-maleimide (GF 109203X), a general inhibitor of all classical and some novel PKCs, did not interfere with survival. Thus, HBDDE should not be used as an isoform-selective inhibitor of PKC  $\alpha$  or  $\gamma$  in intact cells. Nevertheless, identification of its target in granule neurons will provide valuable information about survival pathways.

ACCESSION NUMBER: 2000:531357 CAPLUS  
DOCUMENT NUMBER: 133:264486  
TITLE: 2,2',3,3',4,4'-Hexahydroxy-1,1'-biphenyl-6,6'-dimethanol dimethyl ether (HBDDE)-induced neuronal apoptosis independent of classical protein kinase C  $\alpha$  or  $\gamma$  inhibition  
AUTHOR(S): Mathur, A.; Vallano, M. L.  
CORPORATE SOURCE: Department of Pharmacology, Upstate Medical University, Syracuse, NY, 13210, USA

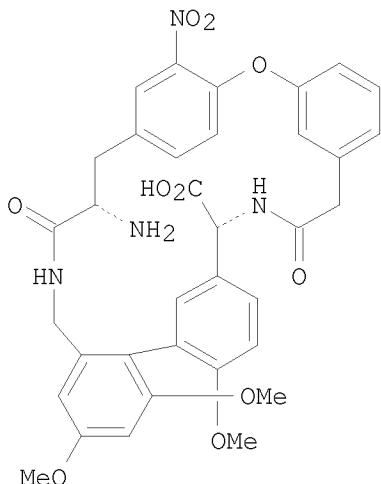
10584234

SOURCE: Biochemical Pharmacology (2000), 60(6),  
809-815  
CODEN: BCPCA6; ISSN: 0006-2952  
PUBLISHER: Elsevier Science Inc.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 154675-18-0  
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)  
(2,2',3,3',4,4'-Hexahydroxy-1,1'-biphenyl-6,6'-dimethanol di-Me ether (HBDDE)-induced neuronal apoptosis independent of classical protein kinase C  $\alpha$  or  $\gamma$  inhibition)  
RN 154675-18-0 CAPLUS  
CN [1,1'-Biphenyl]-2,2',3,3',4,4'-hexol, 6,6'-bis(methoxymethyl)- (CA INDEX NAME)



REFERENCE COUNT: 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 16 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
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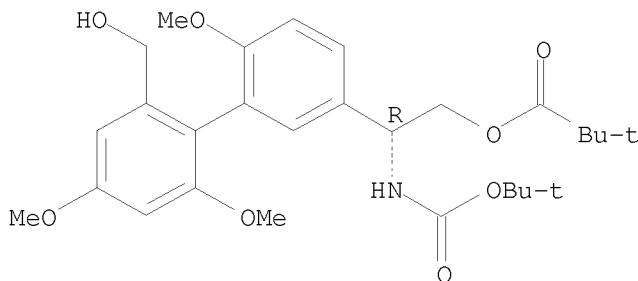
AB The synthesis of a 22-membered macrocycle I with an endo aryl-aryl ether linkage and a biaryl bond related to the AB-C-O-D ring of vancomycin is

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described.

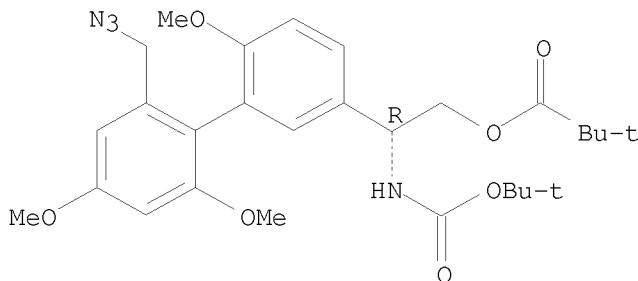
ACCESSION NUMBER: 2000:218049 CAPLUS  
DOCUMENT NUMBER: 133:17790  
TITLE: Synthesis of a model 22-membered AB-C-O-D ring of vancomycin containing biaryl and biaryl ether linkages  
AUTHOR(S): Neuville, Luc; Bois-Choussy, Michele; Zhu, Jieping  
CORPORATE SOURCE: Institut de Chimie des Substances Naturelles, CNRS, Gif-Sur-Yvette, 91198, Fr.  
SOURCE: Tetrahedron Letters (2000), 41(11), 1747-1751  
PUBLISHER: Elsevier Science Ltd.  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 133:17790  
IT 271798-98-2P 271798-99-3P 271799-00-9P  
271799-01-0P 271799-02-1P 271799-03-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation of 22-membered macrocycle fragment of vancomycin containing biaryl and biaryl ether linkages)  
RN 271798-98-2 CAPLUS  
CN Propanoic acid, 2,2-dimethyl-, (2R)-2-[[(1,1-dimethylethoxy)carbonyl]amino]-2-[2'-(hydroxymethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]ethyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 271798-99-3 CAPLUS  
CN Propanoic acid, 2,2-dimethyl-, (2R)-2-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-2-[[(1,1-dimethylethoxy)carbonyl]amino]ethyl ester (CA INDEX NAME)

Absolute stereochemistry.

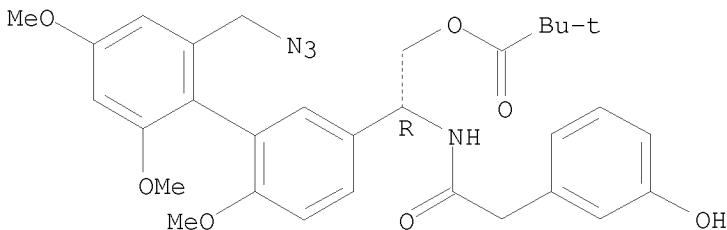


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RN 271799-00-9 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (2R)-2-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-2-[(3-hydroxyphenyl)acetyl]amino]ethyl ester (9CI) (CA INDEX NAME)

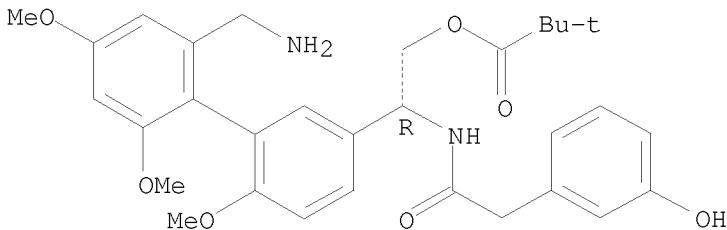
Absolute stereochemistry.



RN 271799-01-0 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (2R)-2-[2'-(aminomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-2-[(3-hydroxyphenyl)acetyl]amino]ethyl ester (9CI) (CA INDEX NAME)

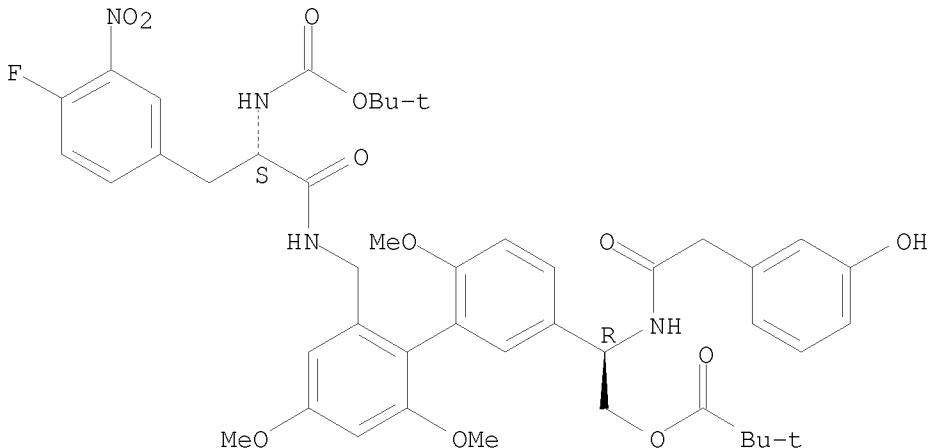
Absolute stereochemistry.



RN 271799-02-1 CAPLUS

CN Propanoic acid, 2,2-dimethyl-, (2R)-2-[2'-[[(2S)-2-[(1,1-dimethylethoxy)carbonyl]amino]-3-(4-fluoro-3-nitrophenyl)-1-oxopropyl]amino]methyl]-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-2-[(3-hydroxyphenyl)acetyl]amino]ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

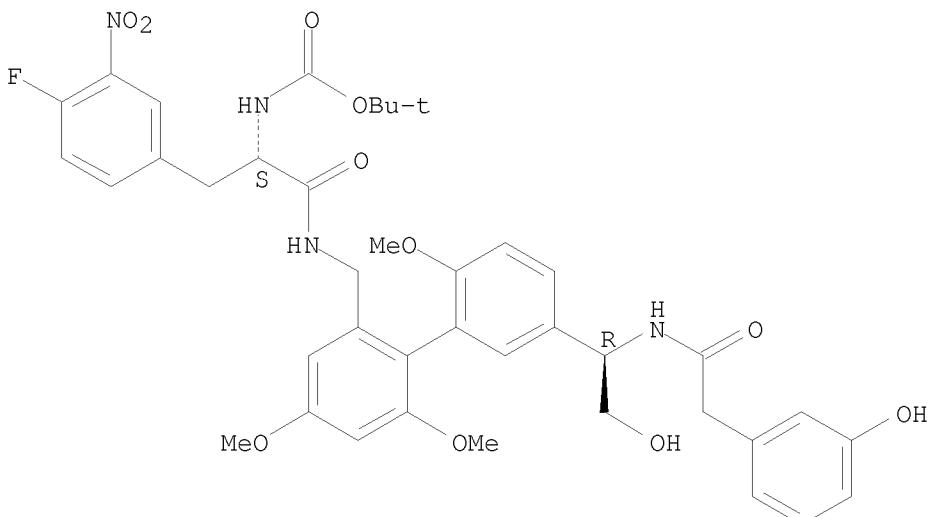


10584234

RN 271799-03-2 CAPLUS

CN Carbamic acid, [(1S)-1-[(4-fluoro-3-nitrophenyl)methyl]-2-[[[5'-(1R)-2-hydroxy-1-[(3-hydroxyphenyl)acetyl]amino]ethyl]-2',4,6-trimethoxy[1,1'-biphenyl]-2-yl]methyl]amino]-2-oxoethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 17 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
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\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB O-Halosubstituted aromatic triazenes I ( $X = H, Br, Cl, F, I$ ) react with aryloxides  $ArOH$  ( $Ar = Ph, 4\text{-MeC}_6H_4, 2\text{-ClC}_6H_4, 4\text{-methyl-2-chlorophenyl}$ ) in the presence of  $CuBr \cdot Me_2S, K_2CO_3$  and pyridine in acetonitrile at reflux to afford biaryl ethers II. This general methodol. was applied to the construction of the C-O-D and D-O-E vancomycin model systems III and IV, resp., demonstrating its potential in a projected total synthesis of vancomycin. For the construction of the vancomycin model AB biaryl ring system, a sequential strategy involving a Suzuki coupling of the C-O-D aryl iodide V and boronic acid VI, followed by macrolactamization was demonstrated, in which the preformed C-O-D ring framework served to preorganize the precursor for cyclization. The latter investigation led to Suzuki-coupling-based asym. synthesis of biaryl systems in which 2,2-bis(diphenylphosphino)-1,1'-binaphthyl (BINAP) was found to be the optimum ligand.

ACCESSION NUMBER: 1999:606646 CAPLUS

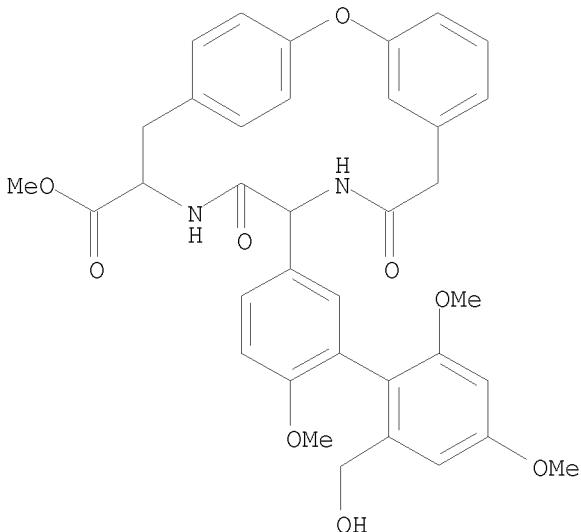
DOCUMENT NUMBER: 131:351647

TITLE: Total synthesis of vancomycin-part 1: design and development of methodology

AUTHOR(S): Nicolaou, K. C.; Li, Hui; Boddy, Christopher N. C.; Ramanjulu, Joshi M.; Yue, Tai-Yuen; Natarajan, Swaminathan; Chu, Xin-Jie; Brase, Stefan; Rubsam,

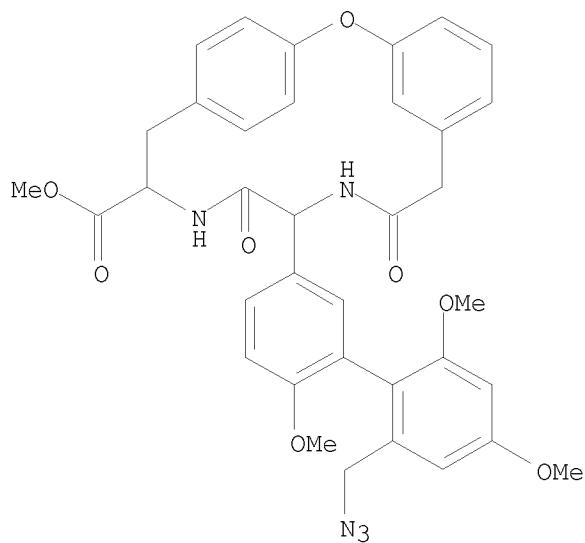
10584234

Frank  
CORPORATE SOURCE: Department of Chemistry and The Skaggs Institute for  
Chemical Biology, The Scripps Research Institute, La  
Jolla, CA, 92037, USA  
SOURCE: Chemistry--A European Journal (1999), 5(9),  
2584-2601  
CODEN: CEUJED; ISSN: 0947-6539  
PUBLISHER: Wiley-VCH Verlag GmbH  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 197844-53-4P 197844-54-5P 197844-57-8P  
197844-58-9P 197921-70-3P 197980-21-5P  
197980-22-6P 197980-23-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(design and synthesis of biaryl ether macrocycles, C-O-D and D-O-E, and  
biaryl ring system AB of vancomycin)  
RN 197844-53-4 CAPLUS  
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-  
14-carboxylic acid, 11-[2'-(hydroxymethyl)-4',6,6'-trimethoxy[1,1'-  
biphenyl]-3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX  
NAME)



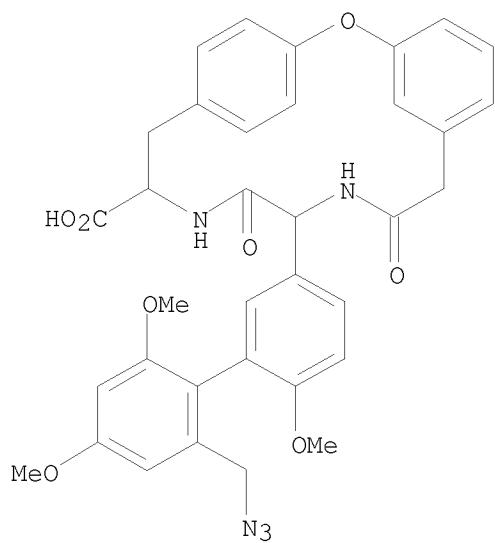
RN 197844-54-5 CAPLUS  
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-  
14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-  
3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX NAME)

10584234



RN 197844-57-8 CAPLUS

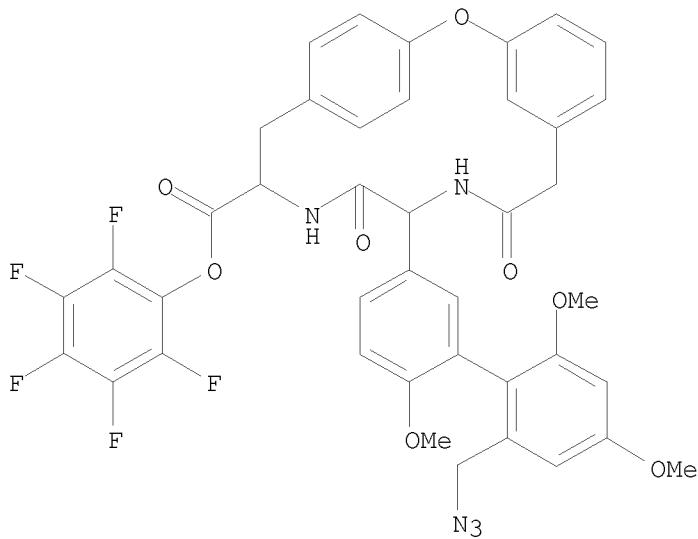
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, stereoisomer (9CI) (CA INDEX NAME)



RN 197844-58-9 CAPLUS

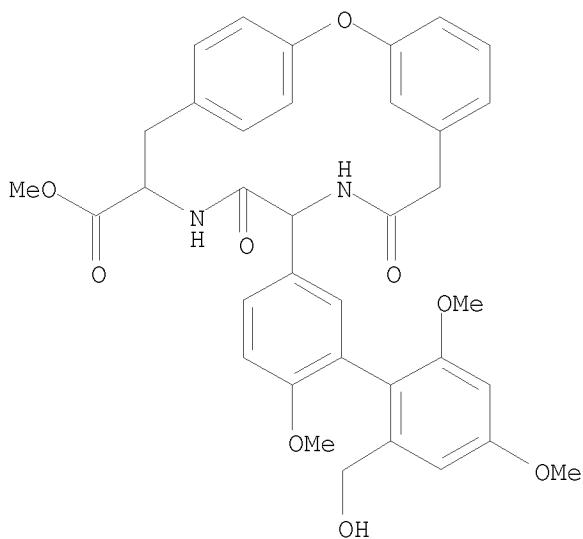
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, pentafluorophenyl ester, stereoisomer (9CI) (CA INDEX NAME)

10584234



RN 197921-70-3 CAPLUS

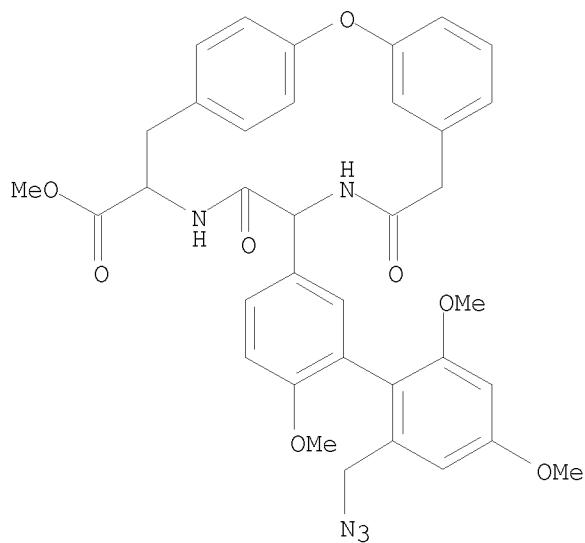
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(hydroxymethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX NAME)



RN 197980-21-5 CAPLUS

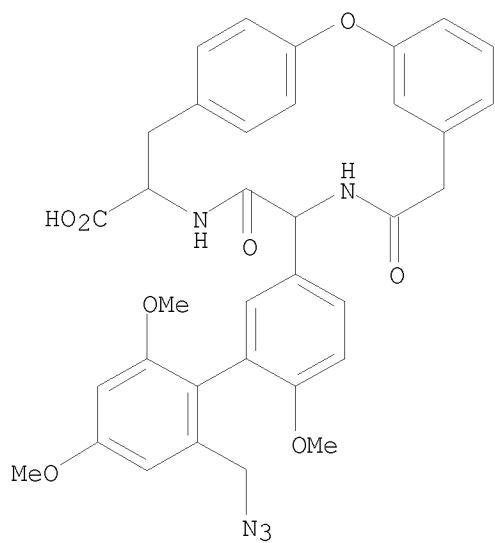
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX NAME)

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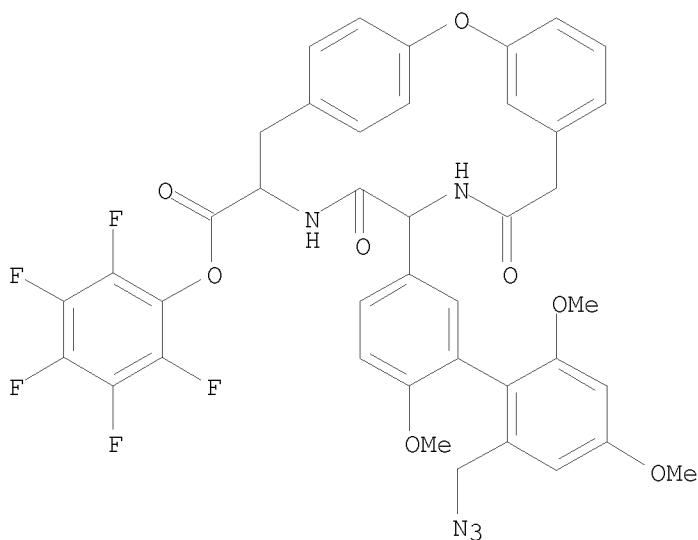
RN 197980-22-6 CAPLUS

CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, stereoisomer (9CI) (CA INDEX NAME)

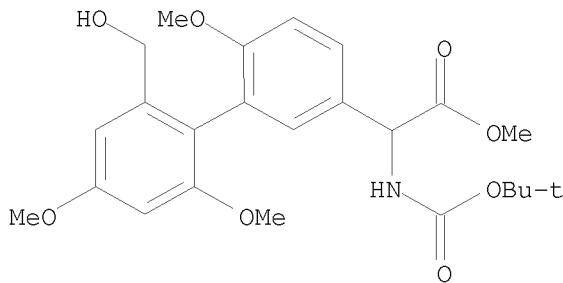


RN 197980-23-7 CAPLUS

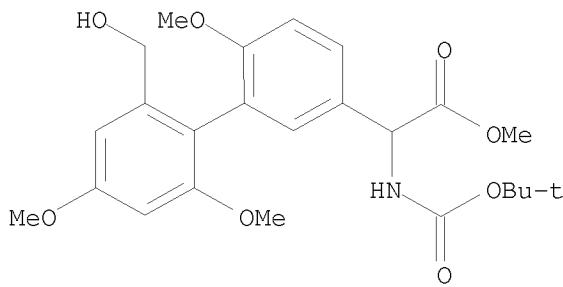
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, pentafluorophenyl ester, stereoisomer (9CI) (CA INDEX NAME)



IT 250364-44-4P 250369-70-1P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (design and synthesis of biaryl ether macrocycles, C-O-D and D-O-E, and  
 biaryl ring system AB of vancomycin)  
 RN 250364-44-4 CAPLUS  
 CN [1,1'-Biphenyl]-3-acetic acid,  $\alpha$ -[(1,1-dimethylethoxy)carbonyl]amino]-2'-(hydroxymethyl)-4',6,6'-trimethoxy-, methyl ester, ( $\alpha$ R,1R)- (9CI) (CA INDEX NAME)

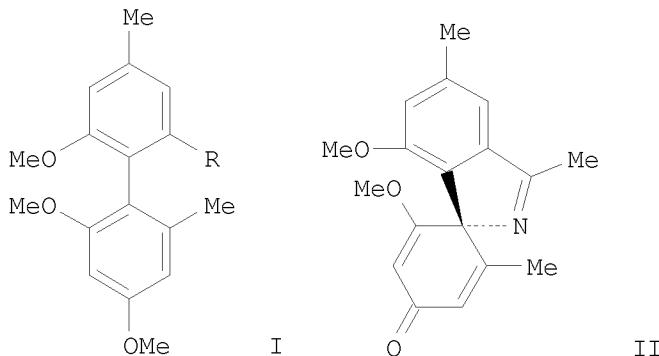


RN 250369-70-1 CAPLUS  
 CN [1,1'-Biphenyl]-3-acetic acid,  $\alpha$ -[(1,1-dimethylethoxy)carbonyl]amino]-2'-(hydroxymethyl)-4',6,6'-trimethoxy-, methyl ester, ( $\alpha$ R,1S)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 112 THERE ARE 112 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE REFORMAT

L18 ANSWER 18 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



AB Schmidt reaction of biphenyl derivative (S)-I ( $R = \text{COMe}$ ) furnished the expected I ( $R = \text{NHAc}$ ) (43%), accompanied by spiro compound (S)-II (30%), which, on reduction with zinc and acetic acid and subsequent methylation, regenerated (S)-I ( $R = \text{COMe}$ ).

ACCESSION NUMBER: 1999:296010 CAPLUS  
 DOCUMENT NUMBER: 131:44628  
 TITLE: Chirality transfer from a biphenyl axis to a spiro center and its reverse: sequential self-immolation  
 AUTHOR(S): Baker, Robert W.; Kyasnoor, Rekha V.; Sargent, Melvyn V.  
 CORPORATE SOURCE: School of Chemistry, University of Sydney, Sydney, 2006, Australia  
 SOURCE: Tetrahedron Letters (1999), 40(17), 3475-3478  
 CODEN: TELEAY; ISSN: 0040-4039  
 PUBLISHER: Elsevier Science Ltd.  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 131:44628  
 IT 227473-47-4P 227473-49-6P 227473-50-9P  
 227473-51-0P 227473-52-1P 227473-55-4P

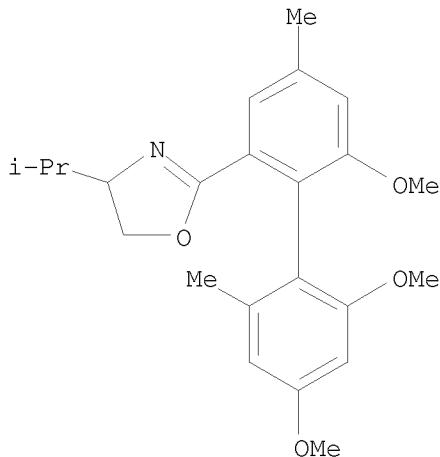
10584234

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(chirality transfer from biphenyl axis to spiro center and its reverse)

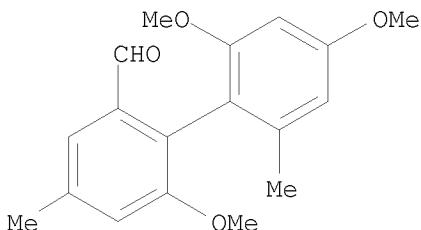
RN 227473-47-4 CAPLUS

CN Oxazole, 4,5-dihydro-4-(1-methylethyl)-2-[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-, (4S)- (9CI) (CA INDEX NAME)



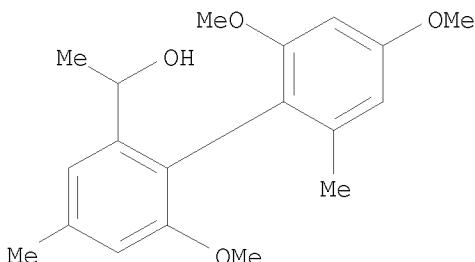
RN 227473-49-6 CAPLUS

CN [1,1'-Biphenyl]-2-carboxaldehyde, 2',4',6-trimethoxy-4,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)



RN 227473-50-9 CAPLUS

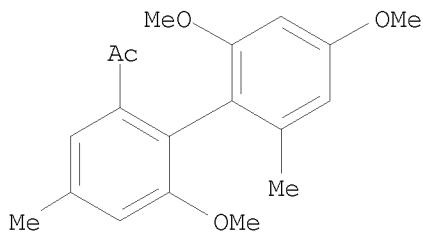
CN [1,1'-Biphenyl]-2-methanol, 2',4',6-trimethoxy- $\alpha$ ,4,6'-trimethyl-, (1S)- (9CI) (CA INDEX NAME)



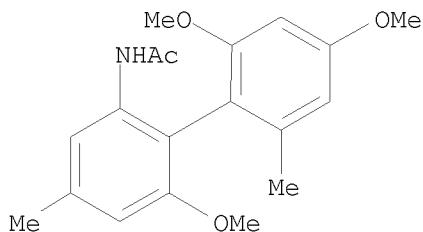
RN 227473-51-0 CAPLUS

CN Ethanone, 1-[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]- (9CI) (CA INDEX NAME)

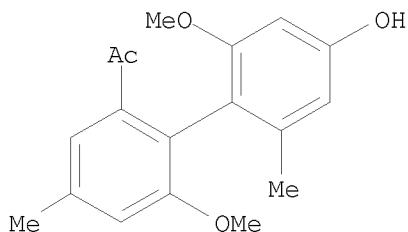
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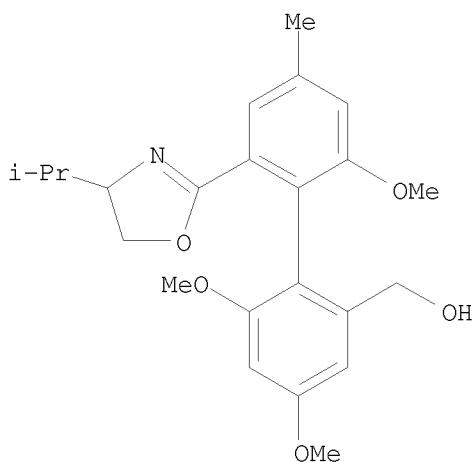
RN 227473-52-1 CAPLUS  
CN Acetamide, N-[(1S)-2',4',6-trimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-(9CI) (CA INDEX NAME)



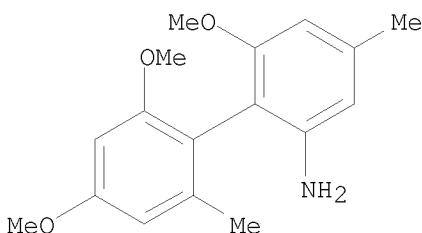
RN 227473-55-4 CAPLUS  
CN Ethanone, 1-[(1S)-4'-hydroxy-2',6-dimethoxy-4,6'-dimethyl[1,1'-biphenyl]-2-yl]-(9CI) (CA INDEX NAME)



IT 227473-48-5P 227473-53-2P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(chirality transfer from biphenyl axis to spiro center and its reverse)  
RN 227473-48-5 CAPLUS  
CN [1,1'-Biphenyl]-2-methanol, 2'-[ (4S)-4,5-dihydro-4-(1-methylethyl)-2-oxazolyl]-4,6,6'-trimethoxy-4'-methyl-, (1S)- (9CI) (CA INDEX NAME)



RN 227473-53-2 CAPLUS  
 CN [1,1'-Biphenyl]-2-amine, 2',4',6-trimethoxy-4,6'-dimethyl-, (1S)- (9CI)  
 (CA INDEX NAME)



REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 19 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Asym. synthesis of both enantiomers of 1,1'-(2',4-dihydroxy-6,6'-dimethoxy-2,4'-dimethylbiphenyl-3,3'-diyl)bisanethone allows the formal synthesis of both enantiomers of desertorin C, i.e. 4,4',7,7'-tetramethoxy-5,5'-dimethyl-6,8'-bicoumarin.

ACCESSION NUMBER: 1998:776061 CAPLUS

DOCUMENT NUMBER: 130:182277

TITLE: A formal synthesis of both atropenantiomers of desertorin C

AUTHOR(S): Kyasnoor, Rekha V.; Sargent, Melvyn V.

CORPORATE SOURCE: Department of Chemistry, University of Western Australia, Nedlands, 6907, Australia

SOURCE: Chemical Communications (Cambridge) (1998), (24), 2713-2714

PUBLISHER: Royal Society of Chemistry

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 130:182277

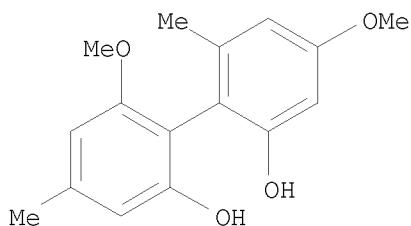
IT 220556-16-1P 220556-17-2P 220556-19-4P

220556-20-7P 220556-22-9P 220556-23-0P

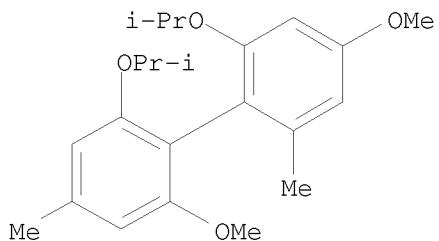
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

10584234

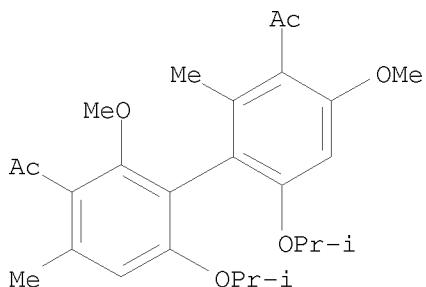
(formal synthesis of both atropenantiomers of desertorin C)  
RN 220556-16-1 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-diol, 4,6'-dimethoxy-4',6-dimethyl-, (1R)- (9CI) (CA INDEX NAME)



RN 220556-17-2 CAPLUS  
CN 1,1'-Biphenyl, 2,4'-dimethoxy-2',4-dimethyl-6,6'-bis(1-methylethoxy)-, (1S)- (9CI) (CA INDEX NAME)

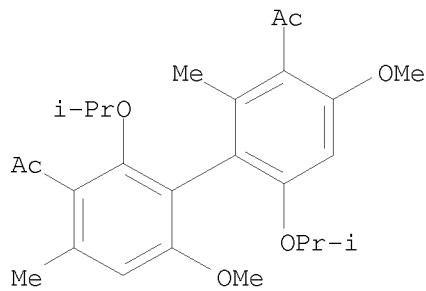


RN 220556-19-4 CAPLUS  
CN Ethanone, 1,1'-[(1S)-2,4'-dimethoxy-2',4-dimethyl-6,6'-bis(1-methylethoxy)[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



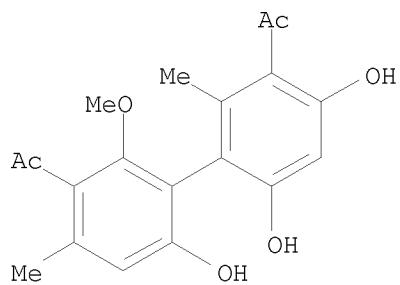
RN 220556-20-7 CAPLUS  
CN Ethanone, 1,1'-[(1S)-4,6'-dimethoxy-2,4'-dimethyl-2',6-bis(1-methylethoxy)[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)

10584234



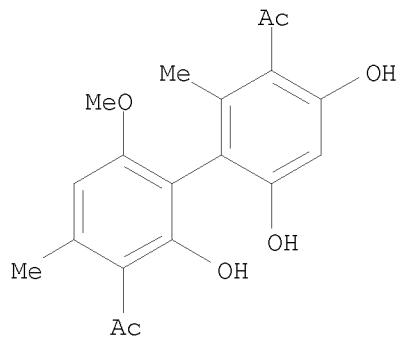
RN 220556-22-9 CAPLUS

CN Ethanone, 1,1'-[ (1S)-4,6,6'-trihydroxy-2'-methoxy-2,4'-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



RN 220556-23-0 CAPLUS

CN Ethanone, 1,1'-[ (1R)-2,4',6'-trihydroxy-6-methoxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)



IT 220556-08-1P 220556-18-3P 220556-24-1P

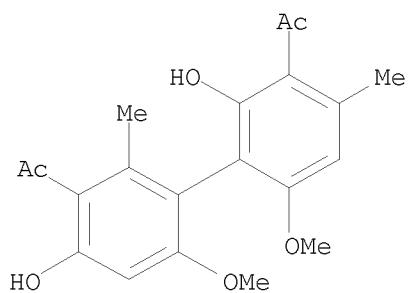
RL: SPN (Synthetic preparation); PREP (Preparation)

(formal synthesis of both atropenantiomers of desertorin C)

RN 220556-08-1 CAPLUS

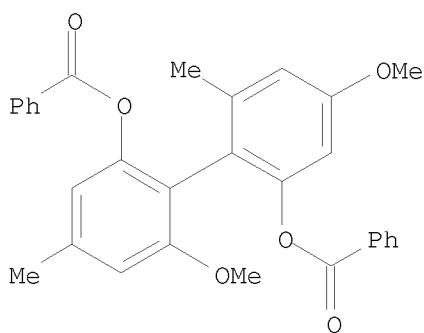
CN Ethanone, 1,1'-[ (1S)-2,4'-dihydroxy-6,6'-dimethoxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)

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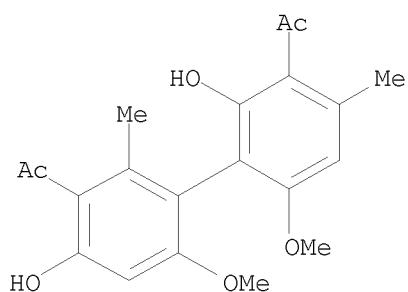
RN 220556-18-3 CAPLUS

CN [1,1'-Biphenyl]-2,2'-diol, 4,6'-dimethoxy-4',6-dimethyl-, dibenzoate,  
(1S)- (9CI) (CA INDEX NAME)



RN 220556-24-1 CAPLUS

CN Ethanone, 1,1'-(1R)-2,4'-dihydroxy-6,6'-dimethoxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)

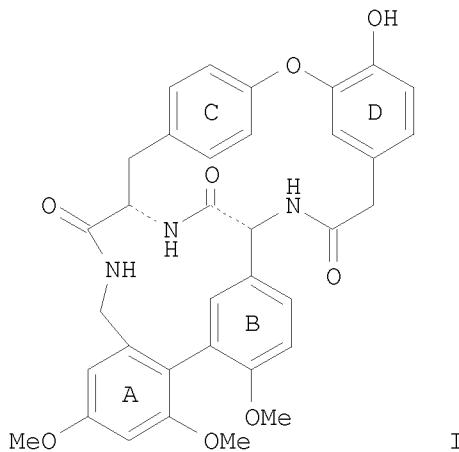


REFERENCE COUNT:

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THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

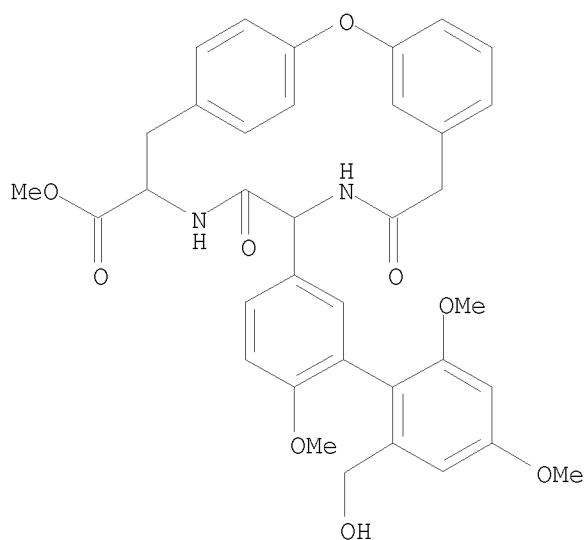
L18 ANSWER 20 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



**AB** The effectiveness of the Suzuki coupling reaction in the formation of the AB biaryl moiety and the beneficial role of a preexisting COD ring system in a lactamization approach to the vancomycin AB-COD ring system I is demonstrated.

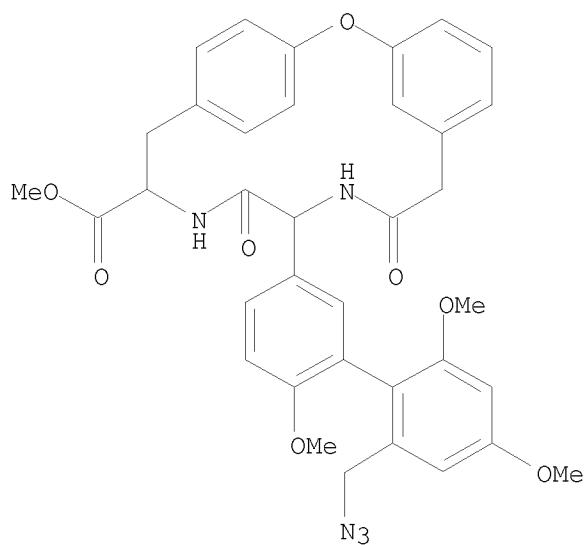
**ACCESSION NUMBER:** 1997:707306 CAPLUS  
**DOCUMENT NUMBER:** 127:331735  
**TITLE:** A Suzuki coupling-macrolactamization approach to the AB-COD bicyclic system of vancomycin  
**AUTHOR(S):** Nicolaou, K. C.; Ramanjulu, Joshi M.; Natarajan, Swaminathan; Brase, Stefan; Li, Hui; Boddy, Christopher N. C.; Rubsam, Frank  
**CORPORATE SOURCE:** Department of Chemistry and The Skaggs Institute for Chemical Biology, The Scripps Research Institute, La Jolla, CA, 92037, USA  
**SOURCE:** Chemical Communications (Cambridge) (1997), (19), 1899-1900  
**CODEN:** CHCOFS; **ISSN:** 1359-7345  
**PUBLISHER:** Royal Society of Chemistry  
**DOCUMENT TYPE:** Journal  
**LANGUAGE:** English  
**OTHER SOURCE(S):** CASREACT 127:331735  
**IT** 197844-53-4P 197844-54-5P 197844-57-8P  
 197844-58-9P 197921-70-3P 197980-21-5P  
 197980-22-6P 197980-23-7P  
**RL:** RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (Suzuki coupling and macrolactamization in preparation of vancomycin bicyclic system)  
**RN** 197844-53-4 CAPLUS  
**CN** 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(hydroxymethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX NAME)

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RN 197844-54-5 CAPLUS

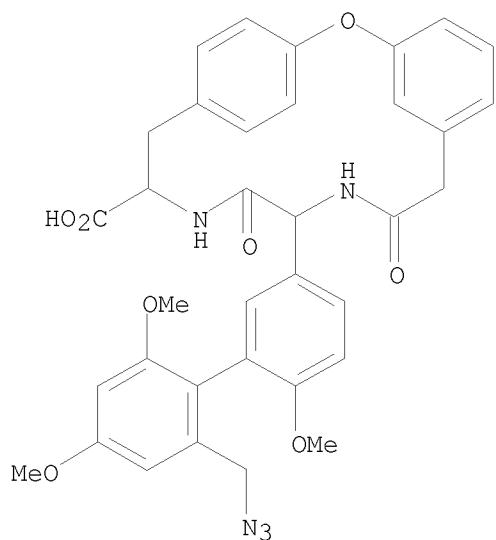
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX NAME)



RN 197844-57-8 CAPLUS

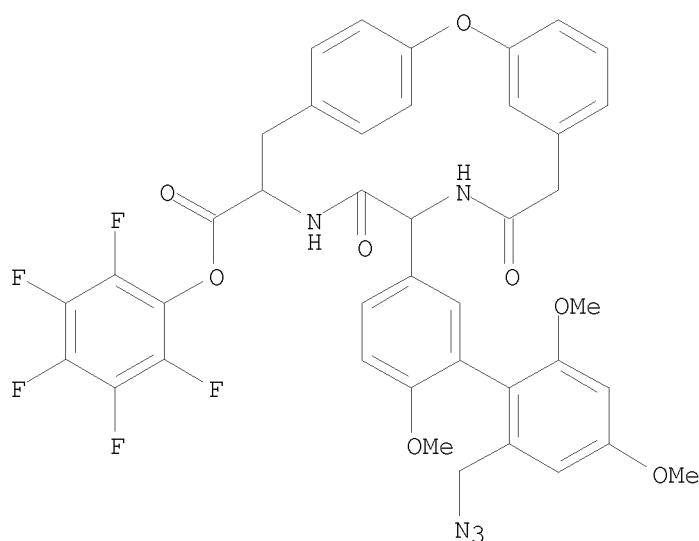
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, stereoisomer (9CI) (CA INDEX NAME)

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RN 197844-58-9 CAPLUS

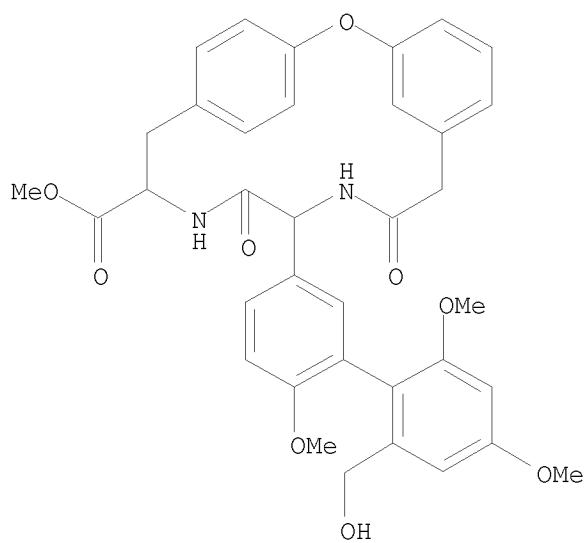
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, pentafluorophenyl ester, stereoisomer (9CI) (CA INDEX NAME)



RN 197921-70-3 CAPLUS

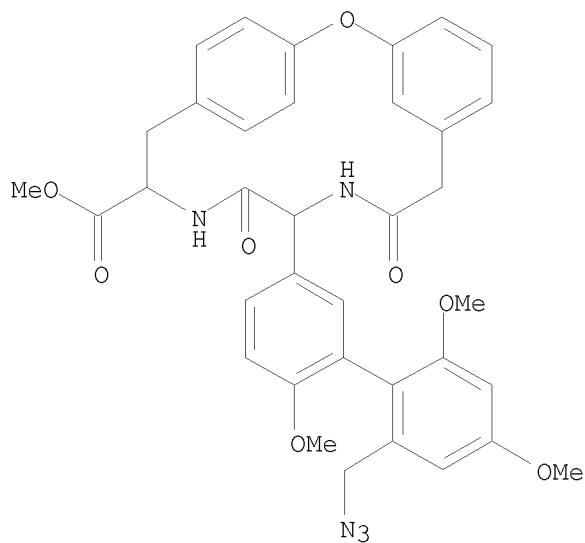
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(hydroxymethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX NAME)

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RN 197980-21-5 CAPLUS

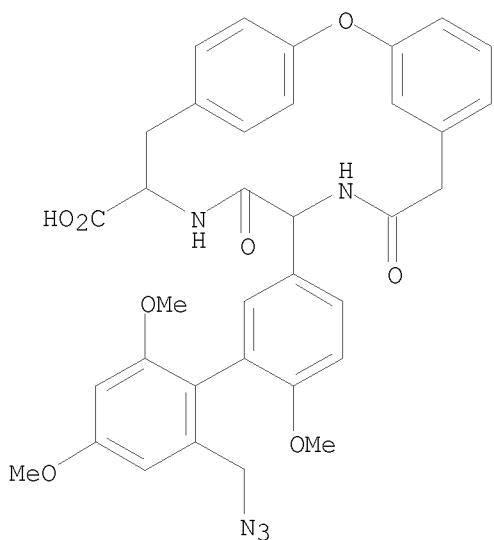
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, methyl ester, stereoisomer (9CI) (CA INDEX NAME)



RN 197980-22-6 CAPLUS

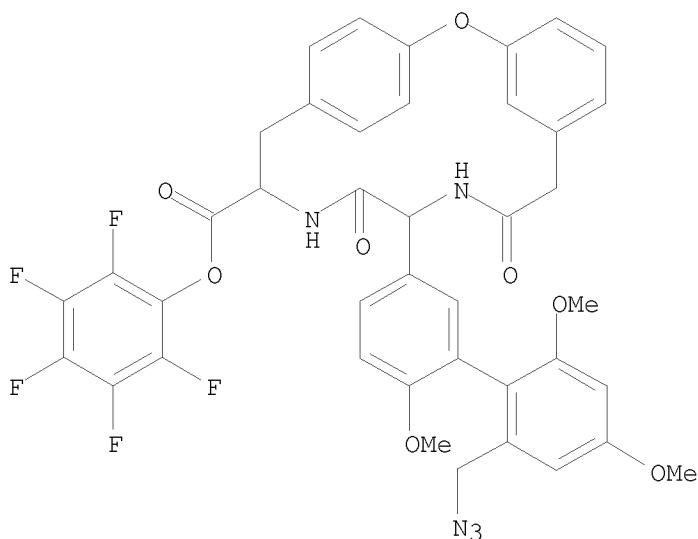
CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, stereoisomer (9CI) (CA INDEX NAME)

10584234



RN 197980-23-7 CAPLUS

CN 2-Oxa-10,13-diazatricyclo[14.2.2.13,7]heneicosa-3,5,7(21),16,18,19-hexaene-14-carboxylic acid, 11-[2'-(azidomethyl)-4',6,6'-trimethoxy[1,1'-biphenyl]-3-yl]-9,12-dioxo-, pentafluorophenyl ester, stereoisomer (9CI) (CA INDEX NAME)



REFERENCE COUNT:

20

THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 21 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

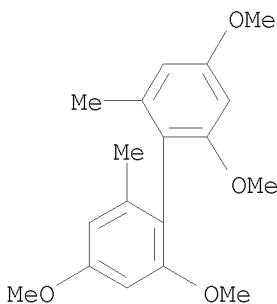
AB Isokotanin A is the new identified biocoumarin from the sclerotia of *Aspergillus alliaceus*, was synthesized, for the first time, for orcinol over oxidative coupling, selective demethylation etc. eight steps in overall yield of 12%.

ACCESSION NUMBER: 1997:146952 CAPLUS

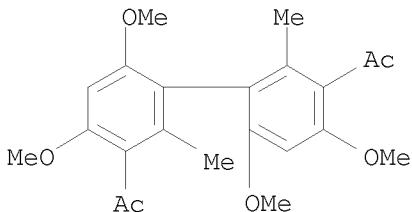
DOCUMENT NUMBER: 126:211942

10584234

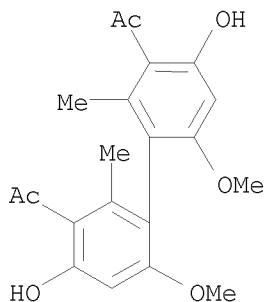
TITLE: Total synthesis of ( $\pm$ )-isokotanin A  
AUTHOR(S): Lin, Guo-Qiang; Zhong, Min  
CORPORATE SOURCE: Shanghai Institute of Organic Chemistry, Chinese Academy of Science, Shanghai, 200032, Peop. Rep. China  
SOURCE: Huaxue Xuebao (1997), 55(1), 97-101  
CODEN: HHPA4; ISSN: 0567-7351  
PUBLISHER: Kexue  
DOCUMENT TYPE: Journal  
LANGUAGE: Chinese  
IT 20261-64-7P 27921-27-3P 188106-78-7P  
188106-79-8P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(total synthesis of ( $\pm$ )-isokotanin A)  
RN 20261-64-7 CAPLUS  
CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl- (CA INDEX NAME)



RN 27921-27-3 CAPLUS  
CN Ethanone, 1,1'-(4,4',6,6'-tetramethoxy-2,2'-dimethyl[1,1'-biphenyl]-3,3'-diyl)bis- (9CI) (CA INDEX NAME)

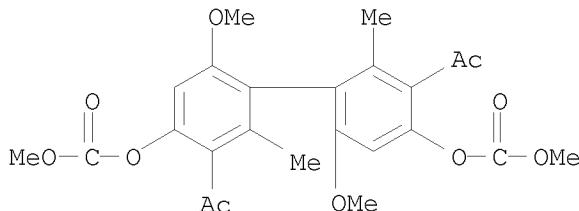


RN 188106-78-7 CAPLUS  
CN Ethanone, 1,1'-(4,4'-dihydroxy-6,6'-tetramethoxy-2,2'-dimethyl[1,1'-biphenyl]-3,3'-diyl)bis- (9CI) (CA INDEX NAME)



RN 188106-79-8 CAPLUS

CN Carbonic acid, 3,3'-diacetyl-6,6'-dimethoxy-2,2'-dimethyl[1,1'-biphenyl]-4,4'-diyl dimethyl ester (9CI) (CA INDEX NAME)



L18 ANSWER 22 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB 96 Alternaria strains isolated from diseased rinds of wheat, potato and eggplant were screened for toxigenicity of alternariol (AOH) and its's Me ether (AME) by the growth inhibition of *Bacillus mycoides*. 48 Strains (50%) exhibited toxic effects on *B. mycoides*. Examined by HPLC, 13 among 18 strains with moderate to high toxicity produced AOH and AME. More A. solani strains were toxic, but A. alternata produces more toxin. The most productive A. alternata XA-8 and A. solani SA-10 strains produced 280 and 95.5mg/kg AOH, and 5140 and 94.3 mg/kg AME.

ACCESSION NUMBER: 1996:601196 CAPLUS

DOCUMENT NUMBER: 125:269955

TITLE: The screening of *Alternaria alternata* and *Alternaria solani* for alternariol and alternariol methyl ether toxigenicity strains

AUTHOR(S): Kuang, Kaiyuan; Shi, Shiying; Luo, Yi; Fong, Jianlin

CORPORATE SOURCE: Inst. Plant Protection, Shanghai Acad. Agricultural Scis., Shanghai, 201106, Peop. Rep. China

SOURCE: Zhenjun Xuebao (1996), 15(2), 109-113

CODEN: ZHXUET; ISSN: 0256-1883

PUBLISHER: Kexue

DOCUMENT TYPE: Journal

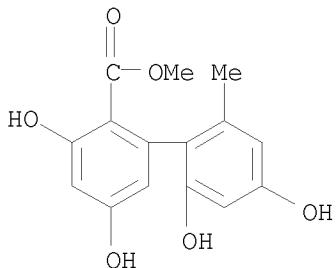
LANGUAGE: Chinese

IT 182259-28-5P

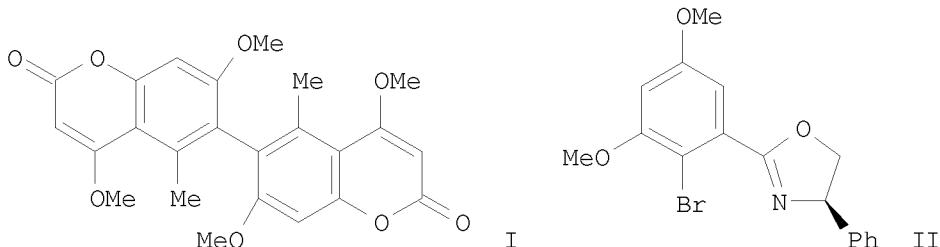
RL: ADV (Adverse effect, including toxicity); BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)  
(screening of *Alternaria alternata* and *Alternaria solani* for alternariol and alternariol Me ether toxigenicity strains)

RN 182259-28-5 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 2',3,4',5-tetrahydroxy-6'-methyl-, methyl ester (CA INDEX NAME)



L18 ANSWER 23 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
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AB The first asym. synthesis of optically pure (+)- and (-)-Isokotanin A (I) is described. The key steps involve the asym. Ullmann coupling of bromide II and selective demethylation. The absolute configuration of the naturally occurring (+)-Isokotanin A is assigned as R.

ACCESSION NUMBER: 1996:271991 CAPLUS

DOCUMENT NUMBER: 125:33352

TITLE: The first synthesis of optically pure (+)- and (-)-Isokotanin A and the assignment of their absolute configuration

AUTHOR(S): Lin, Guo-Qiang; Zhong, Min

CORPORATE SOURCE: Shanghai Inst. Organic Chemistry, Chinese Academy Sciences, Shanghai, 200032, Peop. Rep. China

SOURCE: Tetrahedron Letters (1996), 37(17), 3015-18

CODEN: TELEAY; ISSN: 0040-4039

PUBLISHER: Elsevier

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 125:33352

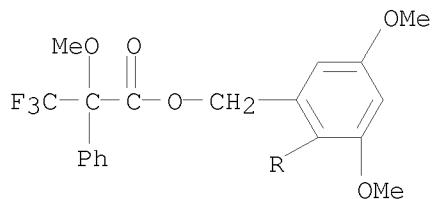
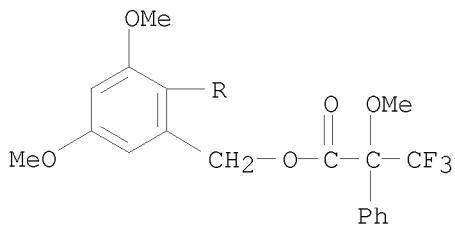
IT 177431-38-8P 177568-73-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(asym. synthesis and absolute configuration of isokotanin A)

RN 177431-38-8 CAPLUS

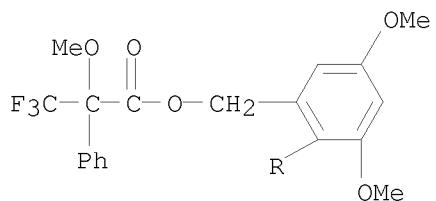
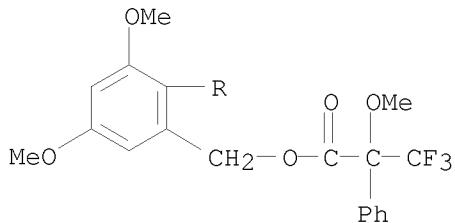
CN Benzeneacetic acid,  $\alpha$ -methoxy- $\alpha$ -(trifluoromethyl)-,  
(4,4',6,6'-tetramethoxy[1,1'-biphenyl]-2,2'-diyl)bis(methylene) ester,  
stereoisomer (9CI) (CA INDEX NAME)

10584234



RN 177568-73-9 CAPLUS

CN Benzeneacetic acid,  $\alpha$ -methoxy- $\alpha$ -(trifluoromethyl)-,  
(4,4',6,6'-tetramethoxy[1,1'-biphenyl]-2,2'-diyl)bis(methylene) ester,  
stereoisomer (9CI) (CA INDEX NAME)



IT 133359-04-3P 133359-05-4P 177431-39-9P

177431-40-2P 177431-41-3P 177431-42-4P

177431-43-5P 177431-45-7P

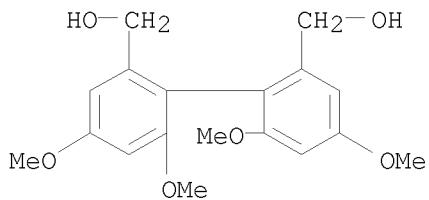
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)

(asym. synthesis and absolute configuration of isokotanin A)

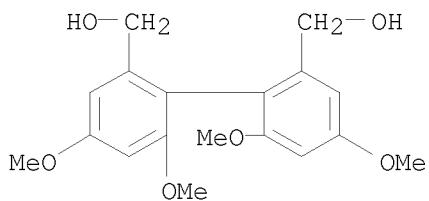
RN 133359-04-3 CAPLUS

CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy-, (1S)- (9CI) (CA INDEX NAME)

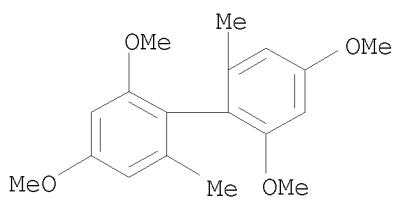
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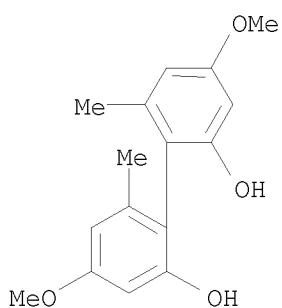
RN 133359-05-4 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy-, (1R)- (9CI) (CA INDEX NAME)



RN 177431-39-9 CAPLUS  
CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl-, (1R)- (9CI) (CA INDEX NAME)

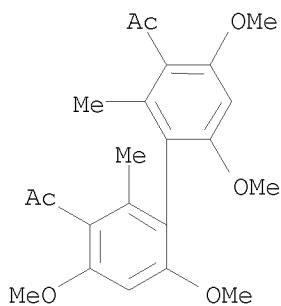


RN 177431-40-2 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-diol, 4,4'-dimethoxy-6,6'-dimethyl-, (1R)- (9CI) (CA INDEX NAME)



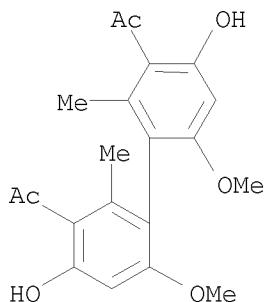
RN 177431-41-3 CAPLUS  
CN Ethanone, 1,1'-(1R)-4,4',6,6'-tetramethoxy-2,2'-dimethyl[1,1'-biphenyl]-3,3'-diyl]bis- (9CI) (CA INDEX NAME)

10584234



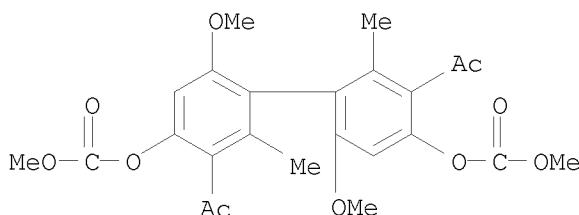
RN 177431-42-4 CAPLUS

CN Ethanone, 1,1'-(1R)-4,4'-dihydroxy-6,6'-tetramethoxy-2,2'-dimethyl[1,1'-biphenyl]-3,3'-diyl bis- (9CI) (CA INDEX NAME)



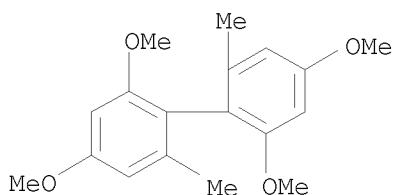
RN 177431-43-5 CAPLUS

CN Carbonic acid, (1R)-3,3'-diacetyl-6,6'-dimethoxy-2,2'-dimethyl[1,1'-biphenyl]-4,4'-diyl dimethyl ester (9CI) (CA INDEX NAME)



RN 177431-45-7 CAPLUS

CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl-, (S)- (9CI) (CA INDEX NAME)



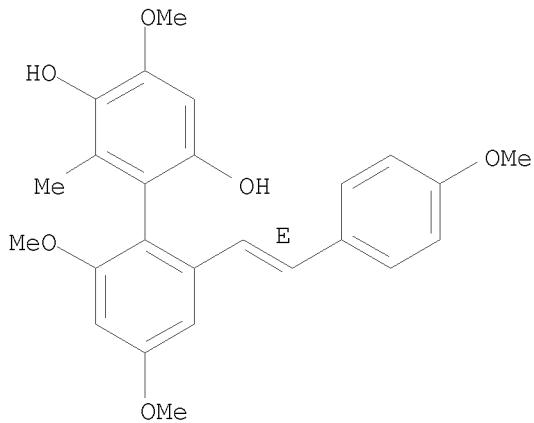
L18 ANSWER 24 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Lewis acid [SnCl<sub>4</sub> or Ti(IV)]-promoted reactions of 2-methoxy-1,4-benzoquinones with substituted (E)-4-methoxystilbenes stereoselectively yield trans-2-(4-methoxyphenyl)-3-aryl-2,3-dihydrobenzofuran-5-ols in good yield.

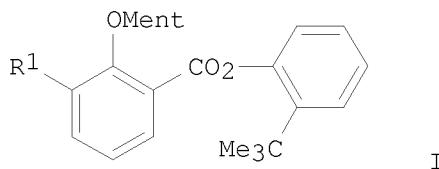
ACCESSION NUMBER: 1995:591903 CAPLUS  
 DOCUMENT NUMBER: 123:55571  
 TITLE: Lewis Acid-Promoted Reactions of Unsymmetrically Substituted Stilbenes with 2-Methoxy-1,4-benzoquinones: Stereoselective Synthesis of trans-2,3-Diaryl-2,3-dihydrobenzofurans

AUTHOR(S): Engler, Thomas A.; Gfesser, Gregory A.; Draney, Bill W.  
 CORPORATE SOURCE: Department of Chemistry, University of Kansas, Lawrence, KS, 66045, USA  
 SOURCE: Journal of Organic Chemistry (1995), 60(12), 3700-6  
 CODEN: JOCEAH; ISSN: 0022-3263  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 123:55571  
 IT 156413-04-6P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (Lewis acid-promoted reactions of unsym. substituted stilbenes with 2-methoxy-1,4-benzoquinones to give trans-diaryldihydrobenzofurans)

RN 156413-04-6 CAPLUS  
 CN [1,1'-Biphenyl]-2,5-diol, 2',4,4'-trimethoxy-6'-(2-(4-methoxyphenyl)ethenyl)-6-methyl-, (E)- (9CI) (CA INDEX NAME)

Double bond geometry as shown.





AB A practical method is presented for an asym. synthesis of axially chiral 1,1'-biphenyl-2-carboxylates via the ester-assisted nucleophilic aromatic substitution reaction. Thus, upon treatment of 2-tert-butylphenyl 2-[(-)-menthoxy]benzoates (I; R<sup>1</sup>= Me, MeO) with an aryl Grignard reagent, chirality of the leaving (-)-menthoxy group is transferred to the newly formed biphenyl linkage with up to 94% optical yield.

ACCESSION NUMBER: 1995:58478 CAPLUS

DOCUMENT NUMBER: 123:143390

TITLE: Asymmetric synthesis of axially chiral 1,1'-biphenyl-2-carboxylates via nucleophilic aromatic substitution on 2-menthoxybenzoates by aryl Grignard reagents

AUTHOR(S): Hattori, Tetsutaro; Koike, Nobuyuki; Miyano, Sotaro

CORPORATE SOURCE: Fac. Eng., Tohoku Univ., Sendai, 980, Japan

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1994), (16), 2273-82

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

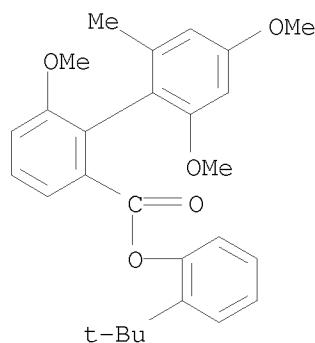
OTHER SOURCE(S): CASREACT 123:143390

IT 166587-31-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(asym. synthesis of axially chiral 1,1'-biphenyl-2-carboxylates)

RN 166587-31-1 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 2',4',6-trimethoxy-6'-methyl-, 2-(1,1-dimethylethyl)phenyl ester, (R)- (9CI) (CA INDEX NAME)



IT 166587-46-8P 166587-47-9P 166587-48-0P

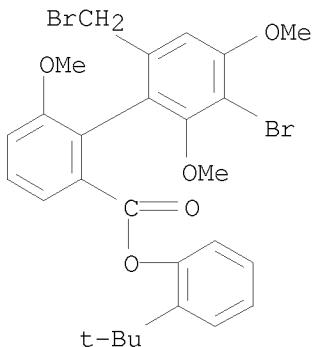
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(determination of absolute configuration of axially chiral 1,1'-biphenyl-2-carboxylates)

RN 166587-46-8 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 3'-bromo-6'-(bromomethyl)-2',4',6-

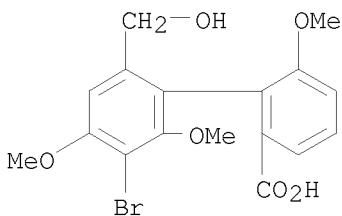
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trimethoxy-, 2-(1,1-dimethylethyl)phenyl ester, (R)- (9CI) (CA INDEX NAME)



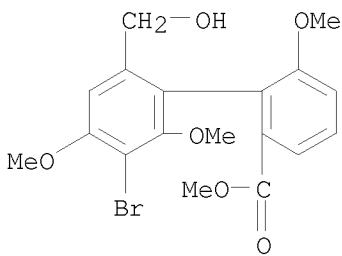
RN 166587-47-9 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 3'-bromo-6'-(hydroxymethyl)-2',4',6-trimethoxy-, (R)- (9CI) (CA INDEX NAME)



RN 166587-48-0 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 3'-bromo-6'-(hydroxymethyl)-2',4',6-trimethoxy-, methyl ester, (R)- (9CI) (CA INDEX NAME)

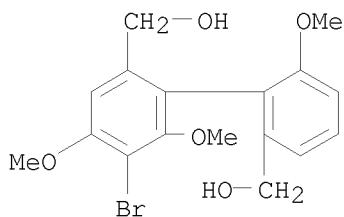


IT 166587-53-7P

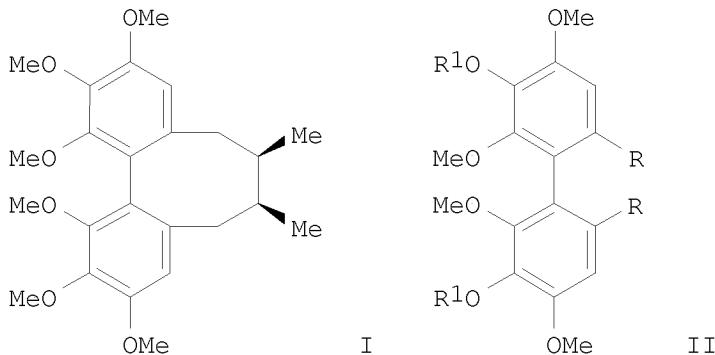
RL: SPN (Synthetic preparation); PREP (Preparation)  
(determination of absolute configuration of axially chiral 1,1'-biphenyl-2-carboxylates)

RN 166587-53-7 CAPLUS

CN [1,1'-Biphenyl]-2,2'-dimethanol, 5-bromo-4,6,6'-trimethoxy-, (R)- (9CI) (CA INDEX NAME)



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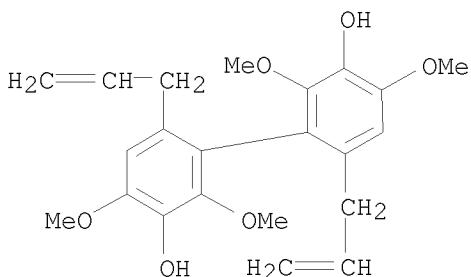


AB A convenient synthesis of ( $\pm$ )-deoxyschizandrin (I) was achieved through the key step of reductive coupling of the bisacetonylbiphenyl I ( $R = CH_2COOMe$ ,  $R_1 = Me$ ). The latter compound was synthesized by oxidative cleavage of the bis olefin I ( $R = CH_2CMe:CH_2$ ,  $R_1 = Me$ ) formed by Claisen rearrangement of the bismethallyl ether of 2,2',4,4'-tetramethoxybiphenyl-3,3'-diol. The synthesis of 2,2',4,4'-tetramethoxy-6,6'-di(prop-1-enyl)biphenyl-3,3'-diol I ( $R = CH:CHMe$ ,  $R_1 = H$ ) (II) is also described. The diphenolic oxidation of II did not lead to products with  $\beta,\beta'$  carbons linked.

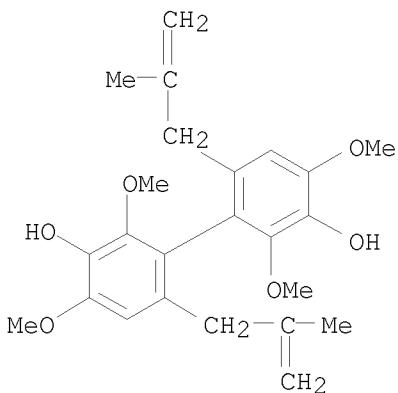
ACCESSION NUMBER: 1995:48046 CAPLUS  
 DOCUMENT NUMBER: 122:160343  
 TITLE: Intramolecular oxidative coupling of aromatic compounds. VII. A convenient synthesis of ( $\pm$ )-deoxyschizandrin  
 AUTHOR(S): Carroll, Anthony R.; Read, Roger W.; Taylor, Walter C.  
 CORPORATE SOURCE: Department of Organic Chemistry, University of Sydney, 2006, Australia  
 SOURCE: Australian Journal of Chemistry (1994), 47(8), 1579-89  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 122:160343  
 IT 51895-33-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

10584234

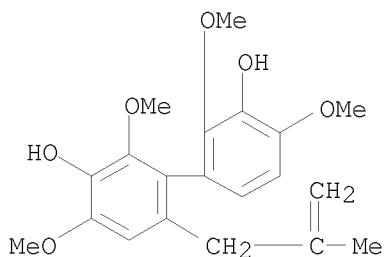
(preparation and isomerization of)  
RN 51895-33-1 CAPLUS  
CN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6,6'-di-2-propenyl-  
(9CI) (CA INDEX NAME)



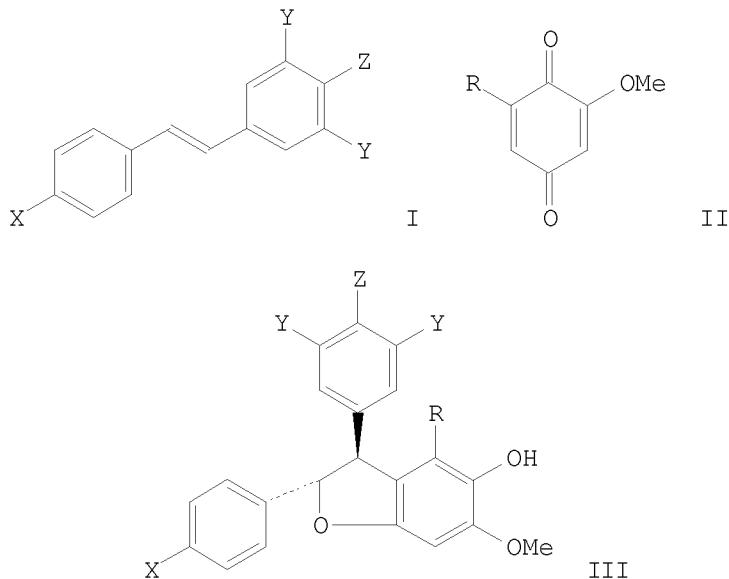
IT 161054-78-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and methylation of)  
RN 161054-78-0 CAPLUS  
CN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6,6'-bis(2-methyl-2-  
propenyl)- (9CI) (CA INDEX NAME)



IT 161054-85-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 161054-85-9 CAPLUS  
CN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6-(2-methyl-2-propenyl)-  
(9CI) (CA INDEX NAME)



L18 ANSWER 27 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
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AB Lewis acid-promoted reactions of unsym. substituted (E)-stilbenes I ( $X = \text{OMe}$ ,  $Y = Z = \text{H}$ ;  $X = \text{OMe}$ ,  $Y = \text{Br}$ ,  $Z = \text{H}$ ) with 2-methoxy-1,4-benzoquinones II ( $R = \text{H}$ ,  $\text{Me}$ ) regio- and stereoselectively produce trans-2,3-diaryl-2,3-dihydrobenzofurans III.

ACCESSION NUMBER: 1994:482807 CAPLUS  
 DOCUMENT NUMBER: 121:82807  
 TITLE: Evaluation of a synthetic route to  $\epsilon$ -viniferin based on a new method for the stereoselective preparation of 2,3-diaryl-2,3-dihydrobenzofurans  
 AUTHOR(S): Engler, Thomas A.; Draney, Bill W.; Gfesser, Gregory A.  
 CORPORATE SOURCE: Dep. Chem., Univ. Kansas, Lawrence, 66045-0046, USA  
 SOURCE: Tetrahedron Letters (1994), 35(11), 1661-4  
 CODEN: TELEAY; ISSN: 0040-4039  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 121:82807  
 IT 156413-04-6P

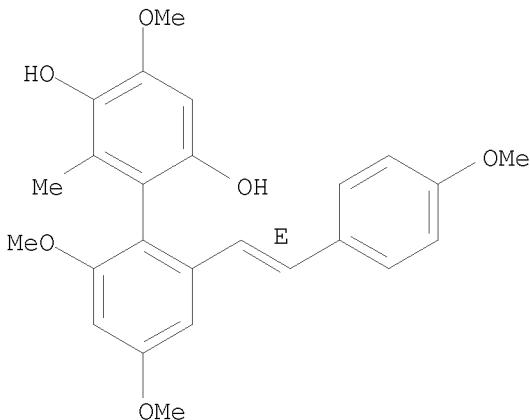
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RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

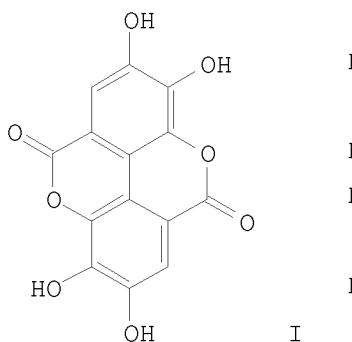
RN 156413-04-6 CAPLUS

CN [1,1'-Biphenyl]-2,5-diol, 2',4,4'-trimethoxy-6'-[2-(4-methoxyphenyl)ethenyl]-6-methyl-, (E)- (9CI) (CA INDEX NAME)

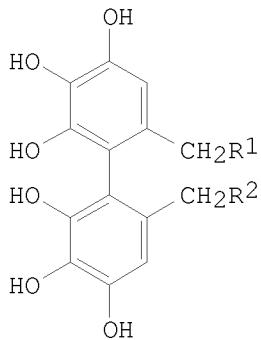
Double bond geometry as shown.



L18 ANSWER 28 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



I



II, R<sup>1</sup>R<sup>2</sup>=O

III, R<sup>1</sup>=R<sup>2</sup>=OMe

AB Previously some ellagitannins were shown to be potent inhibitors of protein kinase C (PKC). On the basis of this finding, several series of ellagic acid (I) hexahydroxybiphenyl derivs. were synthesized as simple analogs of these ellagitannins and were evaluated for their inhibitory effect against PKC. Compds. II and III were found to be potent inhibitors of PKC, while hexakis-(benzyloxy)biphenyl derivs. exhibited weak anti-PKC activity.

ACCESSION NUMBER: 1994:264307 CAPLUS

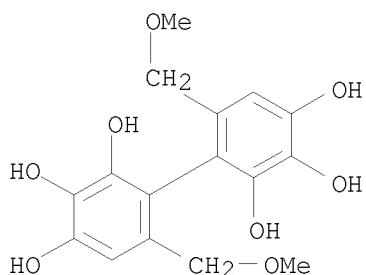
DOCUMENT NUMBER: 120:264307

TITLE: New hexahydroxybiphenyl derivatives as inhibitors of protein kinase C

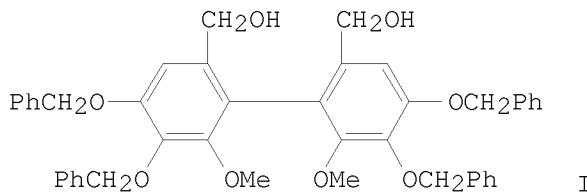
AUTHOR(S): Kashiwada, Yoshiki; Huang, Li; Ballas, Lawrence M.; Jiang, Jack B.; Janzen, William P.; Lee, K.-H.

10584234

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA  
SOURCE: Journal of Medicinal Chemistry (1994), 37(1), 195-200  
CODEN: JMCMAR; ISSN: 0022-2623  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 154675-18-0P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of and protein kinase C inhibition by, structure relation to)  
RN 154675-18-0 CAPLUS  
CN [1,1'-Biphenyl]-2,2',3,3',4,4'-hexol, 6,6'-bis(methoxymethyl)- (CA INDEX NAME)



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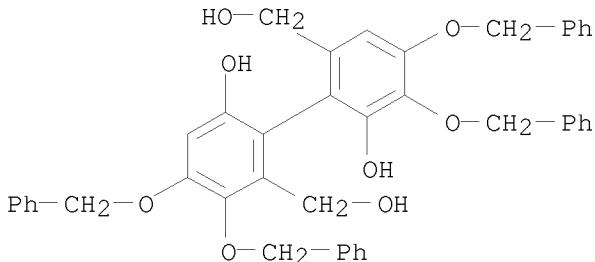


AB A series of hexahydroxybiphenyl derivs. of ellagic acid have been synthesized as simple analogs of ellagitannins and evaluated for their inhibitory activity against HIV replication in H9 lymphocyte cells. Hydroxybiphenyl I was found to be a potent inhibitor of HIV replication in infected H9 lymphocytes with little cytotoxicity.

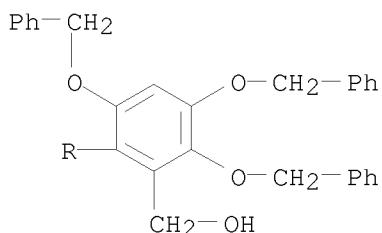
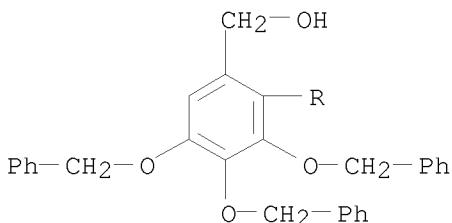
ACCESSION NUMBER: 1993:495216 CAPLUS  
DOCUMENT NUMBER: 119:95216  
TITLE: Anti-AIDS agents. 5. New hexahydroxydiphenyl derivatives as potent inhibitors of HIV replication in H9 lymphocytes  
AUTHOR(S): Kashiwada, Yoshiki; Huang, Li; Kilkuskie, Robert E.; Bodner, Anne J.; Lee, Kuo Hsiung  
CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA  
SOURCE: Bioorganic & Medicinal Chemistry Letters (1992 ), 2(3), 235-8  
CODEN: BMCLE8; ISSN: 0960-894X  
DOCUMENT TYPE: Journal

10584234

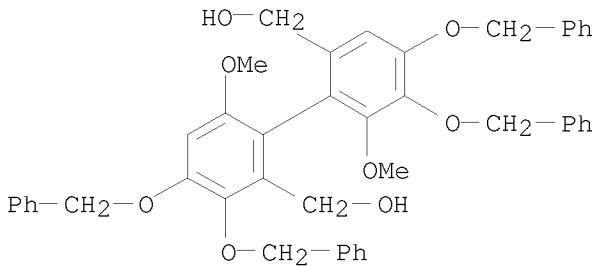
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 119:95216  
IT 149020-57-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and benzylation or methylation of)  
RN 149020-57-5 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-dimethanol, 6,6'-dihydroxy-3,4,4',5'-tetrakis(phenylmethoxy)- (CA INDEX NAME)



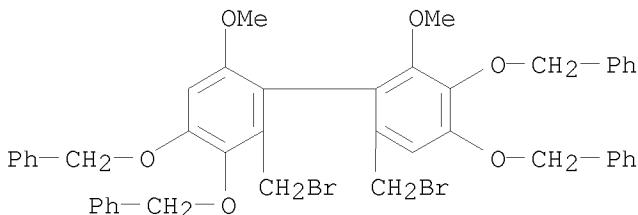
IT 149020-58-6P 149020-61-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oxidation or bromination of)  
RN 149020-58-6 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-dimethanol, 3,4,4',5',6,6'-hexakis(phenylmethoxy)- (CA INDEX NAME)



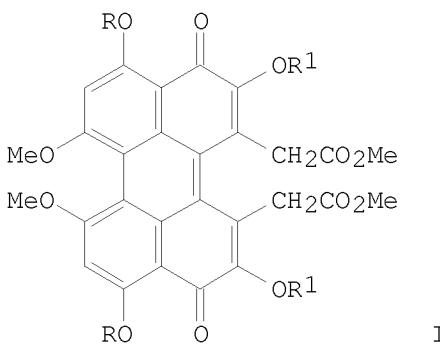
RN 149020-61-1 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-dimethanol, 6,6'-dimethoxy-3,4,4',5'-tetrakis(phenylmethoxy)- (CA INDEX NAME)



IT 149020-63-3P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 149020-63-3 CAPLUS  
 CN 1,1'-Biphenyl, 2,2'-bis(bromomethyl)-6,6'-dimethoxy-3,4,4',5'-tetrakis(phenylmethoxy)- (9CI) (CA INDEX NAME)



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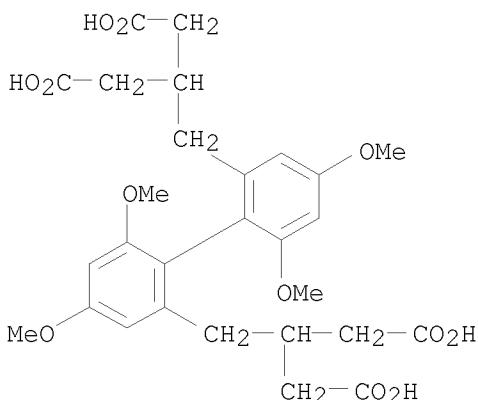


AB Two closely related routes to the perylenediacetate I (R = Me, R<sup>1</sup> = H), one involving Ullmann phenol coupling and the other by double oxidative coupling are described. Regioselective demethylation of I (R = Me, R<sup>1</sup> = H) followed by methylation or vice versa yields I (R = H, R<sup>1</sup> = Me) which, except for its side chains, structurally resembles some of the natural perylenequinones.

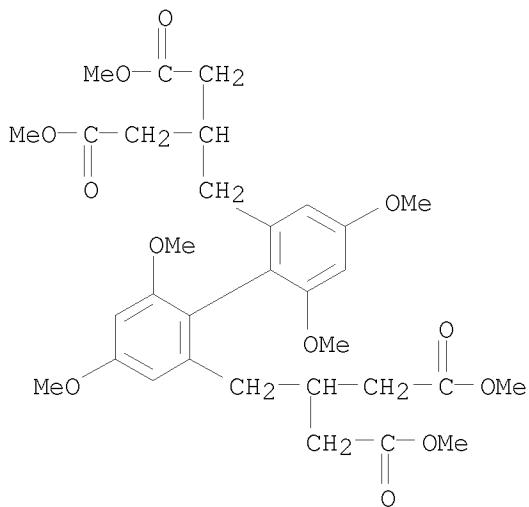
ACCESSION NUMBER: 1993:233720 CAPLUS  
 DOCUMENT NUMBER: 118:233720

10584234

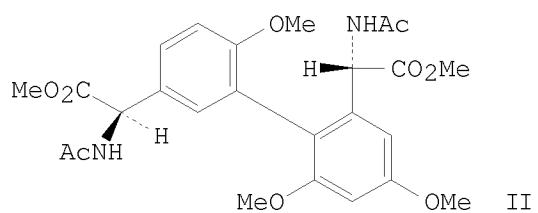
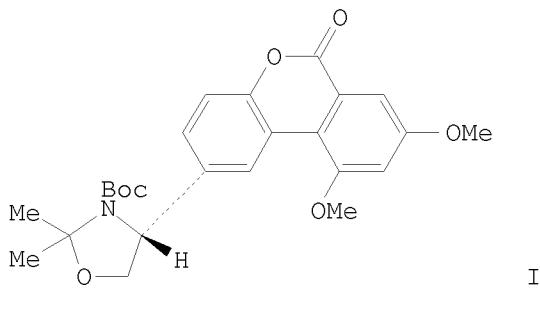
TITLE: Some synthetic studies related to perylenequinones  
AUTHOR(S): Zhao, Chen; Zhang, Xusheng; Zhang, Pang  
CORPORATE SOURCE: Dep. Chem., Peking Univ., Beijing, 100871, Peop. Rep. China  
SOURCE: Liebigs Annalen der Chemie (1993), (1), 35-41  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 116513-73-6P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclization of)  
RN 116513-73-6 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-dibutanoic acid,  $\beta,\beta'$ -bis(carboxymethyl)-4,4',6,6'-tetramethoxy- (9CI) (CA INDEX NAME)



IT 116513-72-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and ester hydrolysis of)  
RN 116513-72-5 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-dibutanoic acid, 4,4',6,6'-tetramethoxy- $\beta,\beta'$ -bis(2-methoxy-2-oxoethyl)-, dimethyl ester (9CI) (CA INDEX NAME)



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AB A successful palladium-catalyzed intramol. coupling of Ph rings corresponding to amino acids (R)-4-hydroxyphenylglycine and (S)-3,5-dihydroxyphenylglycine of vancomycin is achieved. Thus, esterification of 2,3,5-Br(MeO)2C6H2CO2H with N-tert-butoxycarbonyl-O,N-isopropylidene-(R)-(4-hydroxyphenyl)glycinol followed by palladium-catalyzed cyclization gave dibenzopyranone I (Boc = Me<sub>3</sub>CO<sub>2</sub>C). I was converted into the title biphenyl derivative II in 14 steps.

ACCESSION NUMBER: 1992:592317 CAPLUS

DOCUMENT NUMBER: 117:192317

TITLE: The first synthesis of C-terminal biphenyl moiety of vancomycin

AUTHOR(S): Rao, A. V. Rama; Chakraborty, Tushar K.; Joshi, Subodh P.

10584234

CORPORATE SOURCE: Indian Inst. Chem. Technol., Hyderabad, 500 007, India  
SOURCE: Tetrahedron Letters (1992), 33(28), 4045-8

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 117:192317

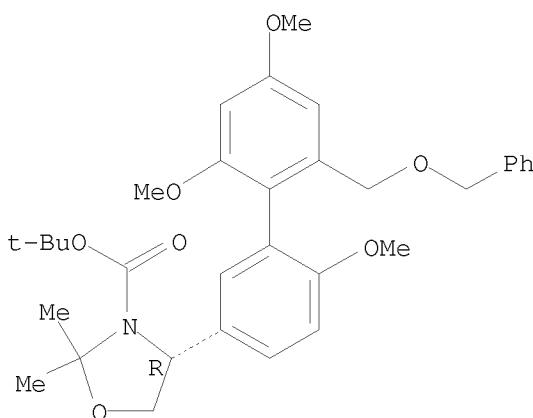
IT 143674-56-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, acidic hydrolysis, and acetylation of)

RN 143674-56-0 CAPLUS

CN 3-Oxazolidinecarboxylic acid, 2,2-dimethyl-4-[2',4',6-trimethoxy-6'-(phenylmethoxy)methyl][1,1'-biphenyl]-3-yl]-, 1,1-dimethylethyl ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

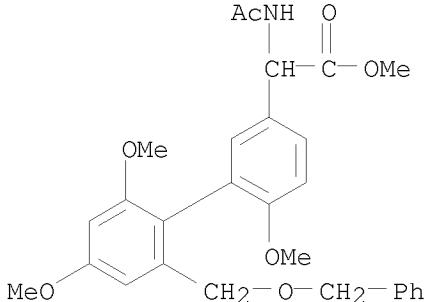


IT 143674-58-2P 143730-42-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation, catalytic debenzylation, and oxidation of, aldehyde from)

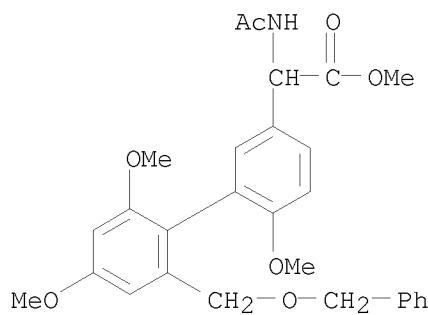
RN 143674-58-2 CAPLUS

CN [1,1'-Biphenyl]-3-acetic acid,  $\alpha$ -(acetylamino)-2',4',6-trimethoxy-6'-(phenylmethoxy)methyl]-, methyl ester, stereoisomer (CA INDEX NAME)

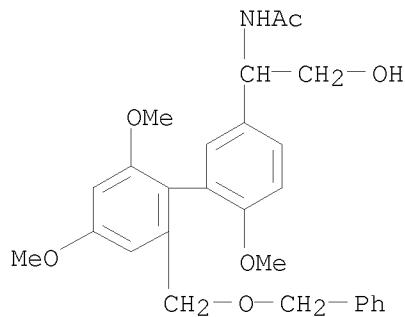


RN 143730-42-1 CAPLUS

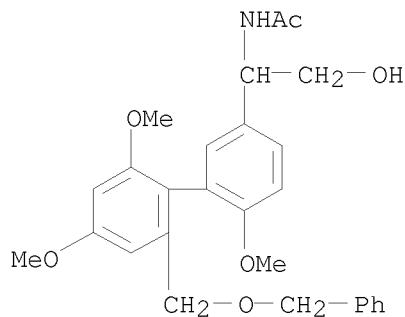
CN [1,1'-Biphenyl]-3-acetic acid,  $\alpha$ -(acetylamino)-2',4',6-trimethoxy-6'-(phenylmethoxy)methyl]-, methyl ester, stereoisomer (CA INDEX NAME)

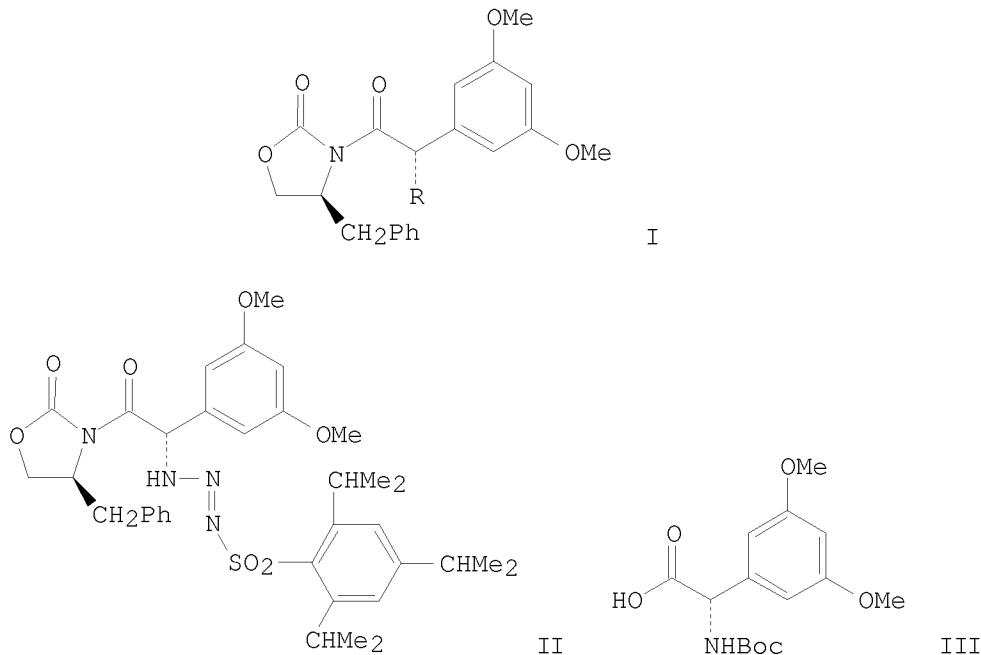


IT 143674-57-1P 143730-41-0P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation, oxidation, and esterification of)  
 RN 143674-57-1 CAPLUS  
 CN Acetamide, N-[2-hydroxy-1-[2',4',6-trimethoxy-6'-(phenylmethoxy)methyl][1,1'-biphenyl]-3-yl]ethyl]-, stereoisomer (CA INDEX NAME)



RN 143730-41-0 CAPLUS  
 CN Acetamide, N-[2-hydroxy-1-[2',4',6-trimethoxy-6'-(phenylmethoxy)methyl][1,1'-biphenyl]-3-yl]ethyl]-, stereoisomer (CA INDEX NAME)





AB The asym. synthesis of vancomycin-related  $\alpha$ -azido arylglycines by direct azide transfer methodol. is reported. Procedures for the conversion of the azides to N-protected arylglycines are provided. Thus, oxazolidinone I ( $R = H$ ) was enolized with KHMDS and then treated with trisyl azide and HOAc at  $-78^\circ$  to give triazene II, which underwent in situ triazene elimination at  $30^\circ$  to give 78% azide I ( $R = N_3$ ) with a stereoselection of 90:10 for S:R. The latter was hydrogenated over Pd/C in the presence of (Boc)<sub>2</sub>O (Boc = Me<sub>3</sub>CO<sub>2</sub>C) to give I ( $R = NH$ Boc), which was hydrolyzed to give arylglycine III.

ACCESSION NUMBER: 1992:236115 CAPLUS

DOCUMENT NUMBER: 116:236115

**TITLE:** A general approach to the asymmetric synthesis of vancomycin-related arylglycines by enolate azidation

AUTHOR(S): Evans, David A.; Evrard, Deborah A.; Rychnovsky, Scott D.; Fruh, Thomas; Whittingham, William G.; DeVries, Keith M.

CORPORATE SOURCE: Dep. Chem., Harvard Univ., Cambridge, MA, 02138, USA

SOURCE: Tetrahedron Letters (1992), 33(9), 1189-92

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 116:236115

IT 141362-54-1 141362-56-3 141434-42-6

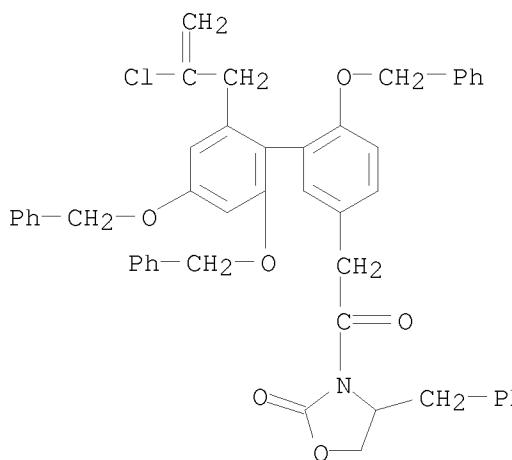
141434-43-7

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (azidation of enolate of, diastereoselectivity of)

RN 141362-54-1 CAPLUS

CN 2-Oxazolidinone, 3-[(2'-(2-chloro-2-propenyl)-4',6,6'-tris(phenylmethoxy)[1,1'-biphenyl]-3-yl]acetyl]-4-(phenylmethyl)-, stereoisomer (9CI) (CA INDEX NAME)

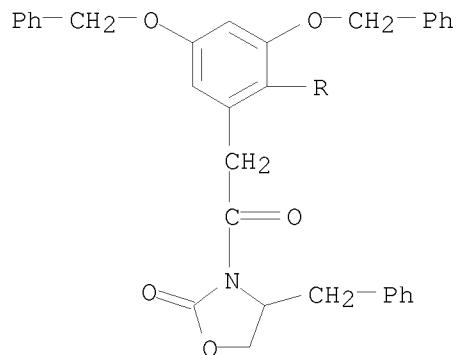
10584234



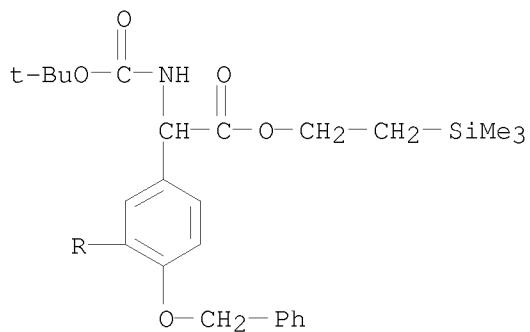
RN 141362-56-3 CAPLUS

CN [1,1'-Biphenyl]-3-acetic acid,  $\alpha$ -[(1,1-dimethylethoxy)carbonyl]amino]-2'-(2-oxo-2-[2-oxo-4-(phenylmethyl)-3-oxazolidinyl]ethyl)-4',6,6'-tris(phenylmethoxy)-, 2-(trimethylsilyl)ethyl ester, stereoisomer (CA INDEX NAME)

PAGE 1-A



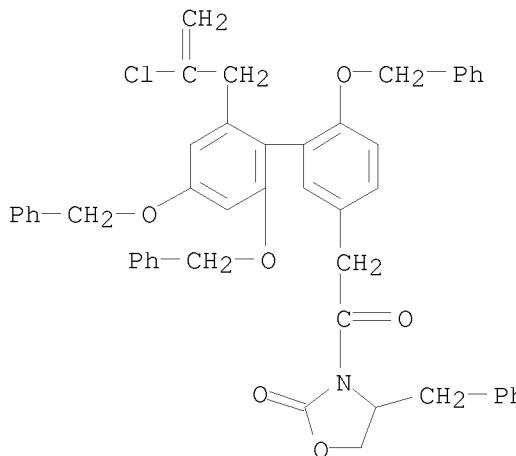
PAGE 2-A



RN 141434-42-6 CAPLUS

10584234

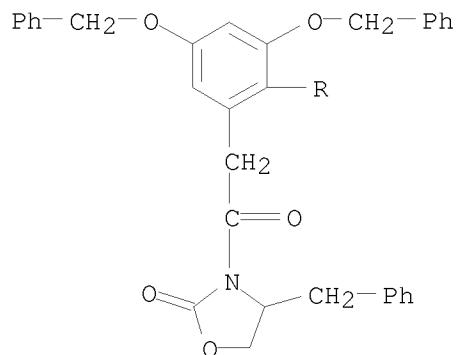
CN 2-Oxazolidinone, 3-[2'-(2-chloro-2-propenyl)-4',6,6'-tris(phenylmethoxy)[1,1'-biphenyl]-3-yl]acetyl]-4-(phenylmethyl)-, stereoisomer (9CI) (CA INDEX NAME)

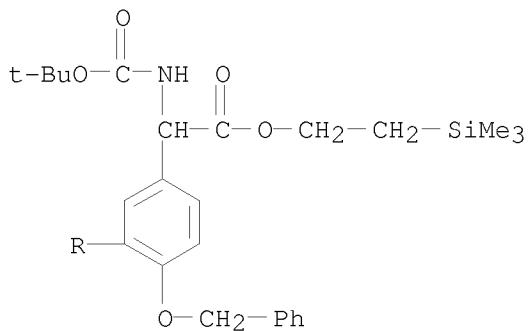


RN 141434-43-7 CAPLUS

CN [1,1'-Biphenyl]-3-acetic acid,  $\alpha$ -[[(1,1-dimethylethoxy)carbonyl]amino]-2'-[2-oxo-2-[2-oxo-4-(phenylmethyl)-3-oxazolidinyl]ethyl]-4',6,6'-tris(phenylmethoxy)-, 2-(trimethylsilyl)ethyl ester, stereoisomer (CA INDEX NAME)

PAGE 1-A



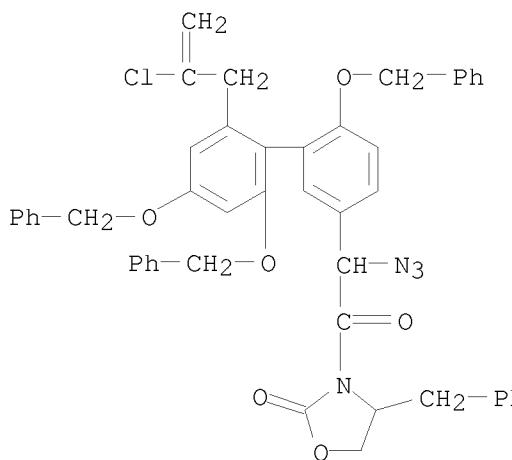


IT 141362-60-9P 141434-44-8P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

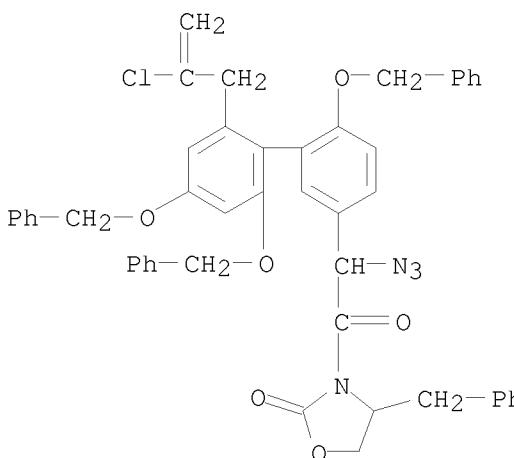
RN 141362-60-9 CAPLUS

CN 2-Oxazolidinone, 3-[azido[2'-(2-chloro-2-propenyl)-4',6,6'-tris(phenylmethoxy)[1,1'-biphenyl]-3-yl]acetyl]-4-(phenylmethyl)-, stereoisomer (9CI) (CA INDEX NAME)



RN 141434-44-8 CAPLUS

CN 2-Oxazolidinone, 3-[azido[2'-(2-chloro-2-propenyl)-4',6,6'-tris(phenylmethoxy)[1,1'-biphenyl]-3-yl]acetyl]-4-(phenylmethyl)-, stereoisomer (9CI) (CA INDEX NAME)



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AB Results of DSC measurements of reactive chems. are presented. Exothermic onset temps. ( $T_o$ ) and heats of decomposition ( $Q$ ) for chems. were analyzed to see if it is possible to classify thermal hazards based on the factors. The values of the 2 factors, which were widely and uniformly distributed, were independent of each other, based on statistical considerations. It is possible to classify and to predict the thermal hazards of reactive chems. by 2-dimensional representation in terms of  $T_o$  and  $Q$ . The reactive chems. were classified into 28 types according to the functional groups. The effects of sample cell type (pinhole cell and sealed cell) and cell material on DSC results are outlined.

ACCESSION NUMBER: 1992:112682 CAPLUS

DOCUMENT NUMBER: 116:112682

TITLE: Analysis of differential scanning calorimetric data for reactive chemicals

AUTHOR(S): Ando, T.; Fujimoto, Y.; Morisaki, S.

CORPORATE SOURCE: Res. Inst. Ind. Saf., Minist. Labour, Kiyose, Japan  
SOURCE: Journal of Hazardous Materials (1991), 28(3), 251-80

CODEN: JHMAD9; ISSN: 0304-3894

DOCUMENT TYPE: Journal

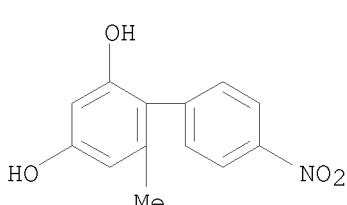
LANGUAGE: English

IT 139139-02-9

RL: PRP (Properties)  
(thermal hazard of, estimation of, DSC in)

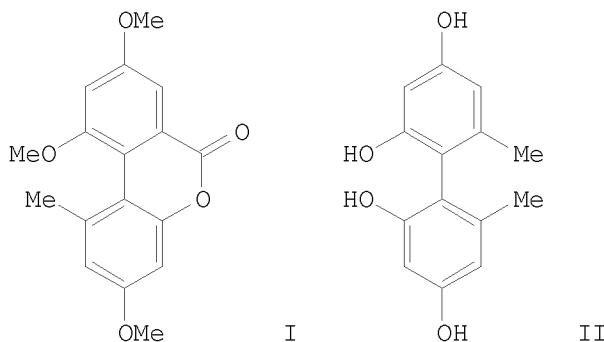
RN 139139-02-9 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 6-methyl-4'-nitro- (CA INDEX NAME)



L18 ANSWER 34 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

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AB The atropisomer-selective cleavage of the bridged biaryl I, which has no stereogenic element, is described. The directed ring opening of the lactone bridge is achieved with chiral O- or N- nucleophiles, i.e., by external asym. induction. The application of this novel process to the 1st atropo-enantioselective synthesis of the constitutionally sym., known (-)-4,4'-bis(orcinol) II is described.

ACCESSION NUMBER: 1991:607611 CAPLUS

DOCUMENT NUMBER: 115:207611

TITLE: Novel concepts in directed biaryl synthesis. 4.  
Diastereoselective ring opening of achiral bridged  
biaryls using chiral O- and N-nucleophiles: first  
atropo-enantioselective synthesis of  
(-)-4,4'-bis(orcinol)

AUTHOR(S): Bringmann, Gerhard; Walter, Rainer; Ewers, Christian  
L. J.

CORPORATE SOURCE: Inst. Org. Chem., Univ. Wuerzburg, Wuerzburg, D-8700,  
Germany

SOURCE: Synlett (1991), (8), 581-3  
CODEN: SYNLES; ISSN: 0936-5214

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 115:207611

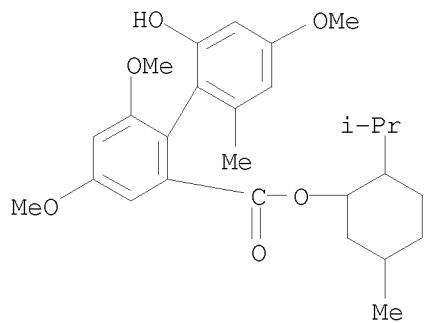
IT 136611-14-8P 136611-15-9P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and conversion of, to orcinol dimer)

RN 136611-14-8 CAPLUS

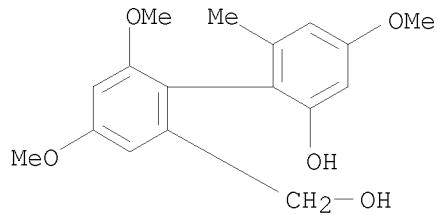
CN [1,1'-Biphenyl]-2-carboxylic acid, 2'-hydroxy-4,4',6-trimethoxy-6'-methyl-, 5-methyl-2-(1-methylethyl)cyclohexyl ester, stereoisomer (CA INDEX  
NAME)

10584234



RN 136611-15-9 CAPLUS

CN [1,1'-Biphenyl]-2-methanol, 2'-hydroxy-4,4',6-trimethoxy-6'-methyl-, (S)- (9CI) (CA INDEX NAME)



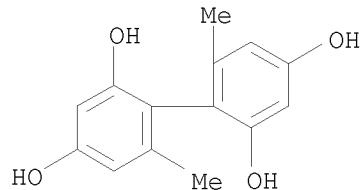
IT 21255-80-1P 136611-16-0P 136658-02-1P

136658-03-2P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 21255-80-1 CAPLUS

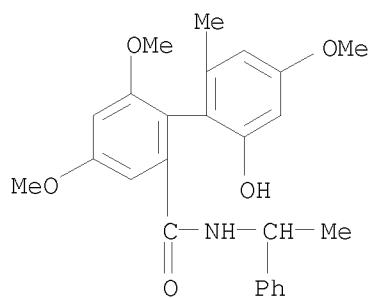
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)



RN 136611-16-0 CAPLUS

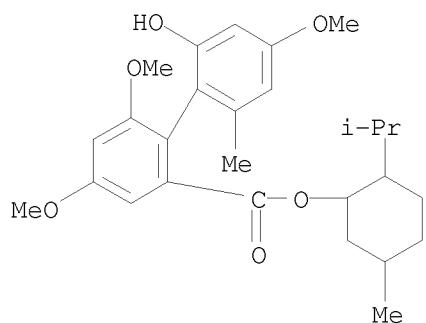
CN [1,1'-Biphenyl]-2-carboxamide, 2'-hydroxy-4,4',6-trimethoxy-6'-methyl-N-(1-phenylethyl)-, stereoisomer (CA INDEX NAME)

10584234



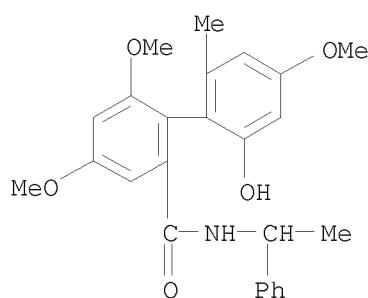
RN 136658-02-1 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 2'-hydroxy-4,4',6-trimethoxy-6'-methyl-5-methyl-2-(1-methylethyl)cyclohexyl ester, stereoisomer (CA INDEX NAME)

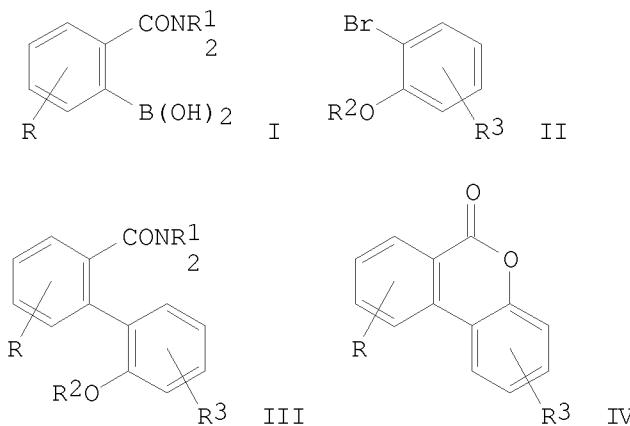


RN 136658-03-2 CAPLUS

CN [1,1'-Biphenyl]-2-carboxamide, 2'-hydroxy-4,4',6-trimethoxy-6'-methyl-N-(1-phenylethyl)-, stereoisomer (CA INDEX NAME)

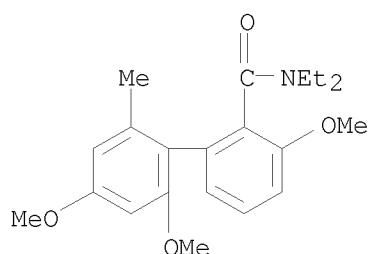


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AB Ortho metalation-boronation of  $\text{RC}_6\text{H}_4\text{CONR}_2$  [R = H, 2-OMe, 2,3-(OMe)2, R1 = CHMe2, Et] gave the arylboronic acids I which upon Pd-catalyzed cross-coupling with alkoxybromobenzenes II (R2 = Me, CH2OMe, R3 = H, 3,4-(OMe)2, 4-MeO, 4-MeO-6-Me) gave 45-88% biphenylamides III.  $\text{BBr}_3$  demethylation of III followed by acid-catalyzed cyclization gave 47-89% dibenzo[b,d]pyran-6-ones IV.

ACCESSION NUMBER: 1991:428958 CAPLUS  
 DOCUMENT NUMBER: 115:28958  
 TITLE: Sequential directed ortho metalation-boronic acid cross-coupling reactions. A general regiospecific route to oxygenated dibenzo[b,d]pyran-6-ones related to ellagic acid  
 AUTHOR(S): Alo, B. I.; Kandil, A.; Patil, P. A.; Sharp, M. J.; Siddiqui, M. A.; Snieckus, Victor; Josephy, P. D.  
 CORPORATE SOURCE: Guelph-Waterloo Cent. Grad. Work Chem., Univ. Waterloo, Waterloo, ON, N2L 3G1, Can.  
 SOURCE: Journal of Organic Chemistry (1991), 56(12), 3763-8  
 CODEN: JOCEAH; ISSN: 0022-3263  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 115:28958  
 IT 133730-32-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation, demethylation, and intramol. cyclocondensation of, dibenzopyranones from)  
 RN 133730-32-2 CAPLUS  
 CN [1,1'-Biphenyl]-2-carboxamide, N,N-diethyl-2',3,4'-trimethoxy-6'-methyl-  
 (CA INDEX NAME)



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AB The preparation of racemates and (+)- and (-)-isomers of 5,7-dihydro-1,3,9,11-tetramethoxydibenz[c,e]oxepine, 5,7-dihydro-1,2,10,11-tetramethoxydibenz[c,e]oxepine, and 5,7-dihydro-1,2,3,9,11-hexamethoxydibenz[c,e]oxepine starting from the corresponding diphenic acids was described. A comparison of the racemization parameters for the above (S)- or (R)-isomers showed that methoxy groups in the 2,10-positions enhanced stability, whereas methoxy groups in the 3,9-positions had a lesser stabilizing effect. The influence of meta and para substitutions on the configurational stability was compared to that of 5,7-dihydro-1,11-dimethoxydibenz[c,e]oxepine.

ACCESSION NUMBER: 1991:185232 CAPLUS

DOCUMENT NUMBER: 114:185232

TITLE: Buttressing and electronic effects of meta- and para-methoxy substituents on the configurational stability of 5,7-dihydro-1,11-dimethoxydibenz[c,e]oxepine

AUTHOR(S): Insole, Joan M.

CORPORATE SOURCE: Div. Environ. Sci., Polytech. East London, London, E15 4LZ, UK

SOURCE: Journal of Chemical Research, Synopses (1990), (12), 378-9

CODEN: JRPSDC; ISSN: 0308-2342

DOCUMENT TYPE: Journal

LANGUAGE: English

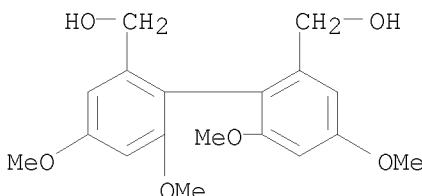
OTHER SOURCE(S): CASREACT 114:185232

IT 133359-03-2P 133359-04-3P 133359-05-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation and cyclocondensation reaction of)

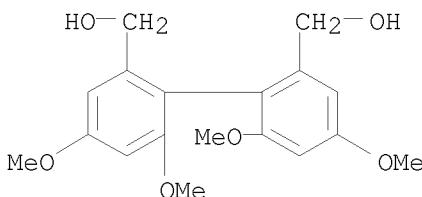
RN 133359-03-2 CAPLUS

CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy- (CA INDEX NAME)



RN 133359-04-3 CAPLUS

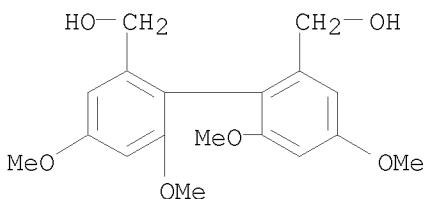
CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy-, (1S)- (9CI) (CA INDEX NAME)



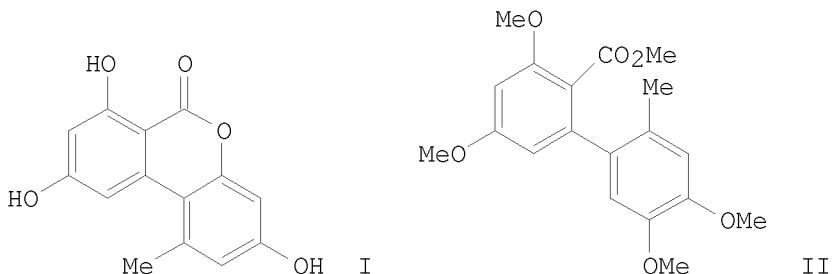
RN 133359-05-4 CAPLUS

10584234

CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,4',6,6'-tetramethoxy-, (1R)- (9CI) (CA INDEX NAME)

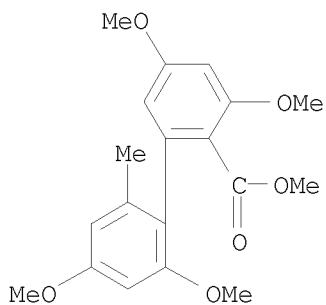


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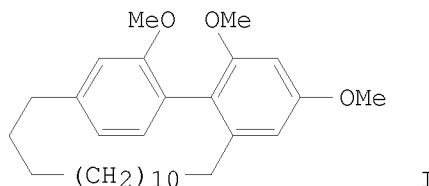


AB A novel method for the preparation of 6-aryl-2,4-dimethoxybenzoic acids involves the Alder-Rickert reaction of 1,5-dimethoxycyclohexa-1,4-dienes and arylpropionic esters. This strategy has been extended to the synthesis of the mold metabolites alternariol (I) and Me trimethylaltenusin (II).

ACCESSION NUMBER: 1991:6101 CAPLUS  
DOCUMENT NUMBER: 114:6101  
TITLE: Synthesis based on cyclohexadienes. Part 4. Novel synthesis of the 6-aryl-2,4-dimethoxybenzoates. Alternariol and methyl trimethylaltenusin  
AUTHOR(S): Kanakam, Charles C.; Mani, N. S.; Rao, G. S. R. Subba  
CORPORATE SOURCE: Dep. Org. Chem., Indian Inst. Sci., Bangalore, 560 012, India  
SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) ( 1990), (8), 2233-7  
DOCUMENT TYPE: CODEN: JCPRB4; ISSN: 0300-922X  
Journal  
LANGUAGE: English  
OTHER SOURCE(S): CASREACT 114:6101  
IT 31185-72-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, demethylation, and cyclization of)  
RN 31185-72-5 CAPLUS  
CN [1,1'-Biphenyl]-2-carboxylic acid, 2',3,4',5-tetramethoxy-6'-methyl-, methyl ester (CA INDEX NAME)



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I

AB Tetramethoxyturriane (I) was prepared. The key steps in this synthesis were the construction of the biphenyl linkage of the mol. using dihydrooxazole chemical and the closure of the macrocycle by oxidative coupling of 4,2,6-HC.tplbond.C(CH<sub>2</sub>)<sub>5</sub>(MeO)2C<sub>6</sub>H<sub>2</sub>C<sub>6</sub>H<sub>2</sub>(OMe)2(CH<sub>2</sub>)<sub>5</sub>C.tplbond.CH-4,6,2.

ACCESSION NUMBER: 1990:497297 CAPLUS

DOCUMENT NUMBER: 113:97297

TITLE: Synthesis of the cyclophane tetramethoxyturriane: a derivative of the phenolic cyclophanes of Grevillea striata R. Br

AUTHOR(S): Sargent, Melvyn V.; Wangchareontrakul, Sirichai

CORPORATE SOURCE: Dep. Org. Chem., Univ. West. Australia, Nedlands, 6009, Australia

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1990), (1), 129-32

CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 113:97297

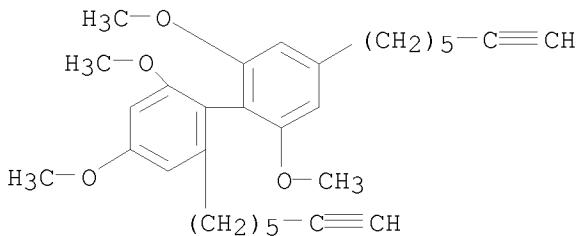
IT 128836-37-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and cyclization of)

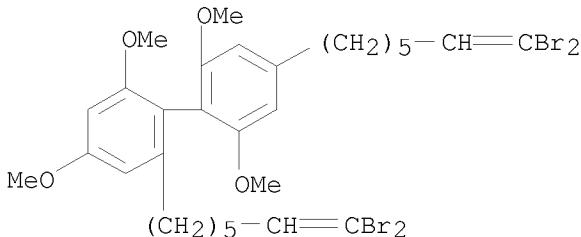
RN 128836-37-3 CAPLUS

CN 1,1'-Biphenyl, 2,4'-di-6-heptynyl-2',4,6,6'-tetramethoxy- (9CI) (CA INDEX NAME)

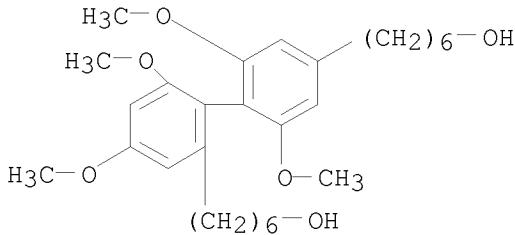
10584234



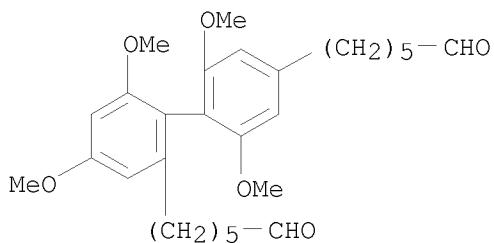
IT 128878-74-0P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and debromination of)  
RN 128878-74-0 CAPLUS  
CN 1,1'-Biphenyl, 2,4'-bis(7,7-dibromo-6-heptenyl)-2',4,6,6'-tetramethoxy-  
(9CI) (CA INDEX NAME)



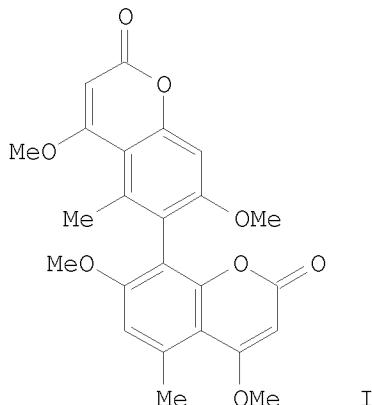
IT 128836-36-2P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and oxidation of)  
RN 128836-36-2 CAPLUS  
CN [1,1'-Biphenyl]-2,4'-dihexanol, 2',4,6,6'-tetramethoxy- (CA INDEX NAME)



IT 128854-41-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and reaction of, with carbon tetrabromide)  
RN 128854-41-1 CAPLUS  
CN [1,1'-Biphenyl]-2,4'-dihexanal, 2',4,6,6'-tetramethoxy- (CA INDEX NAME)

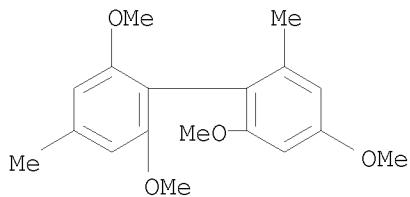


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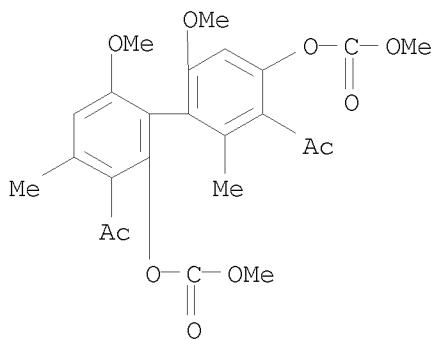


AB The structure of desertorin C, a metabolite of the mold *Emericella desertorum*, is confirmed as I by synthesis as racemic I. The key step is the construction of 2,2',4,6'-tetramethoxy-4',6-dimethylbiphenyl, using dihydrooxazole chemical

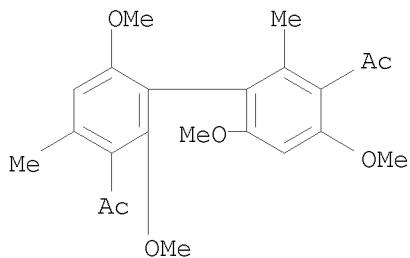
ACCESSION NUMBER: 1989:94802 CAPLUS  
 DOCUMENT NUMBER: 110:94802  
 TITLE: Synthesis of desertorin C, a bicoumarin from the fungus *Emericella desertorum*  
 AUTHOR(S): Rizzacasa, Mark A.; Sargent, Melvyn V.  
 CORPORATE SOURCE: Dep. Org. Chem., Univ. West. Australia, Nedlands, 6009, Australia  
 SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1988), (8), 2425-8  
 CODEN: JCPRB4; ISSN: 0300-922X  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English  
 OTHER SOURCE(S): CASREACT 110:94802  
 IT 119098-84-9P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
     (preparation and acetylation of)  
 RN 119098-84-9 CAPLUS  
 CN 1,1'-Biphenyl, 2,2',4,6'-tetramethoxy-4',6-dimethyl- (CA INDEX NAME)



IT 119098-87-2P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
     (preparation and cyclization. of)  
 RN 119098-87-2 CAPLUS  
 CN Carbonic acid, 3,3'-diacetyl-6,6'-dimethoxy-2',4-dimethyl[1,1'-biphenyl]-  
     2,4'-diyl dimethyl ester (9CI) (CA INDEX NAME)

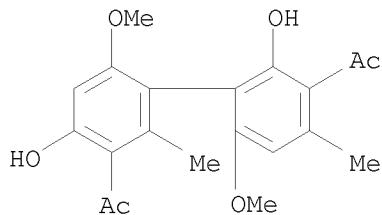


IT 119098-86-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
     (Reactant or reagent)  
     (preparation and demethylation of)  
 RN 119098-86-1 CAPLUS  
 CN Ethanone, 1,1'-(2,4',6,6'-tetramethoxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-  
     diyl)bis- (9CI) (CA INDEX NAME)



IT 110325-66-1P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
     (Reactant or reagent)  
     (preparation and reaction of, with chloroformate)  
 RN 110325-66-1 CAPLUS  
 CN Ethanone, 1,1'-(2,4'-dihydroxy-6,6'-dimethoxy-2',4-dimethyl[1,1'-biphenyl]-  
     3,3'-diyl)bis- (9CI) (CA INDEX NAME)

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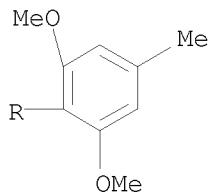
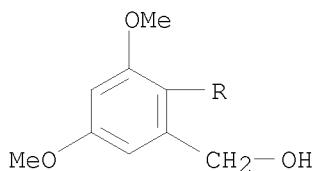


IT 119098-83-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and reduction of)

RN 119098-83-8 CAPLUS

CN [1,1'-Biphenyl]-2-methanol, 2',4,6,6'-tetramethoxy-4'-methyl- (CA INDEX NAME)

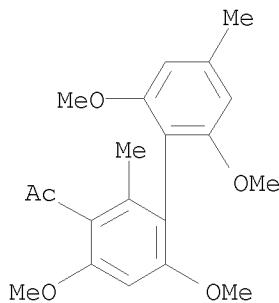


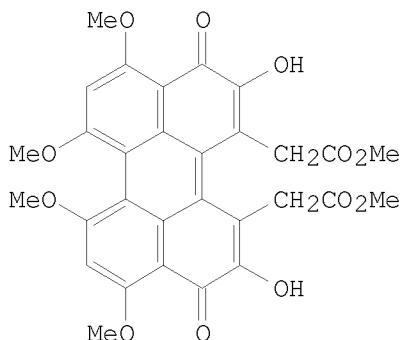
IT 119098-85-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 119098-85-0 CAPLUS

CN Ethanone, 1-(2',4,6,6'-tetramethoxy-2,4'-dimethyl[1,1'-biphenyl]-3-yl)-  
(CA INDEX NAME)





AB Two-stage Ullmann and phenol coupling were effected in a single operation on Me 5-bromo-1,2-dihydroxy-6,8-dimethoxynaphthalene-3-acetate to give di-Me 5,8-dihydroxy-1,3,10,12-tetramethoxy-4,9-perylenequinone-6,7-diacetate (I) by using FeCl<sub>3</sub> as oxidant.

ACCESSION NUMBER: 1988:549109 CAPLUS

DOCUMENT NUMBER: 109:149109

TITLE: A facile route to perylenequinone

AUTHOR(S): Chao, Chen; Zhang, Pang

CORPORATE SOURCE: Dep. Chem., Peking Univ., Beijing, Peop. Rep. China

SOURCE: Tetrahedron Letters (1988), 29(2), 225-6

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

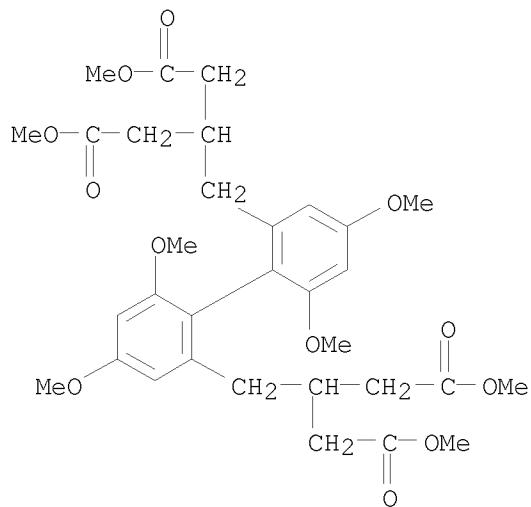
LANGUAGE: English

OTHER SOURCE(S): CASREACT 109:149109

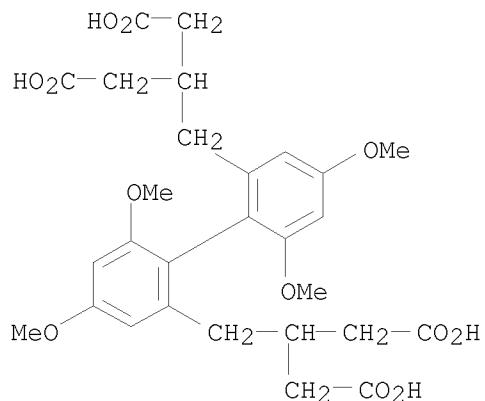
IT 116513-72-5P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and ester hydrolysis of)

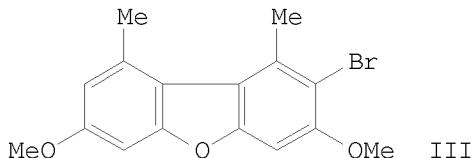
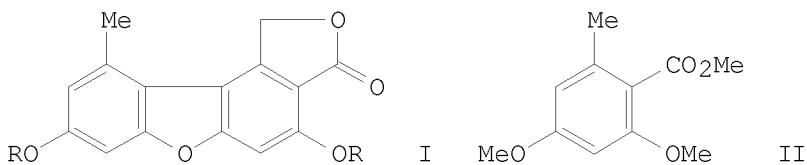
RN 116513-72-5 CAPLUS

CN [1,1'-Biphenyl]-2,2'-dibutanoic acid, 4,4',6,6'-tetramethoxy-  
 $\beta,\beta'$ -bis(2-methoxy-2-oxoethyl)-, dimethyl ester (9CI) (CA INDEX  
NAME)



IT 116513-73-6P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
 (Reactant or reagent)  
 (preparation and ring closure of)  
 RN 116513-73-6 CAPLUS  
 CN [1,1'-Biphenyl]-2,2'-dibutanoic acid, β,β'-bis(carboxymethyl)-  
 4,4',6,6'-tetramethoxy- (9CI) (CA INDEX NAME)





AB Methylstrepasilin (I; R = Me) a derivative of the lichen dibenzofuran strepsilin (I; R = H) was prepared from toluoate II via biaryl coupling, furan formation and transformations on dibenzofuran III.

ACCESSION NUMBER: 1987:617342 CAPLUS

DOCUMENT NUMBER: 107:217342

TITLE: Naturally occurring dibenzofurans. X. A new synthesis of di-O-methylstrepasilin

AUTHOR(S): Giles, Robin G. F.; Sargent, Melvyn V.

CORPORATE SOURCE: Dep. Org. Chem., Univ. West. Australia, Nedlands, 6009, Australia

SOURCE: Australian Journal of Chemistry (1986), 39(12), 2177-81

CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

LANGUAGE: English

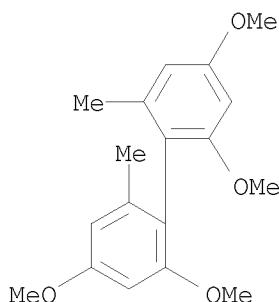
OTHER SOURCE(S): CASREACT 107:217342

IT 20261-64-7P

RL: FORM (Formation, nonpreparative); PREP (Preparation)  
(formation of, during demethylation of tetramethoxybiphenyl)

RN 20261-64-7 CAPLUS

CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl- (CA INDEX NAME)

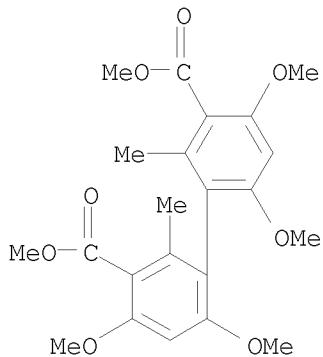


IT 111301-07-6P

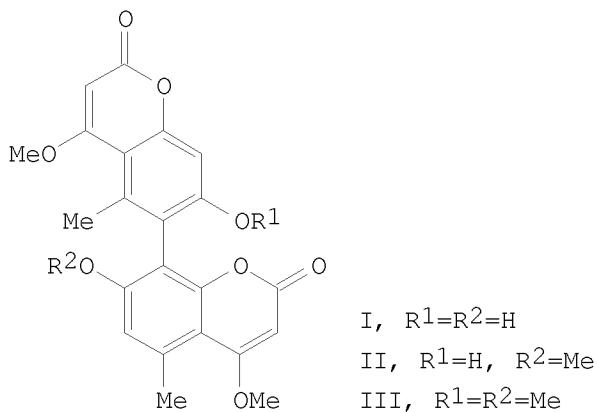
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, demethylation, and furan formation of)

RN 111301-07-6 CAPLUS

CN [1,1'-Biphenyl]-3,3'-dicarboxylic acid, 4,4',6,6'-tetramethoxy-2,2'-dimethyl-, 3,3'-dimethyl ester (CA INDEX NAME)



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AB Together with silvaticol, nidulol, ergosterol, paxilline, and mannitol, 3 new bicooumarins designated as desertorin A (I), B (II), and C (III) were isolated from *E. desertorum*, strain CBS 653.73. The structures of I-III were determined on the basis of the spectroscopic and chemical investigations of

these compds. and their derivs. as 7,7'-dihydroxy-4,4'-dimethoxy-5,5'-dimethyl-6,8'-bicooumarin, 5,5'-dimethyl-7-hydroxy-4,4',7'-trimethoxy-6,8'-bicooumarin, and 5,5'-dimethyl-4,4',7,7'-tetramethoxy-6,8'-bicooumarin, resp. It is interesting to note that silvaticol and nidulol, both of the known metabolites of *Aspergillus silvaticus*, were isolated from the same exts.

ACCESSION NUMBER: 1987:530568 CAPLUS  
 DOCUMENT NUMBER: 107:130568  
 TITLE: Studies on fungal products. Part 10. Isolation and structures of novel bicooumarins, desertorins A, B, and C, from *Emericella desertorum*  
 AUTHOR(S): Nozawa, Kohei; Seyea, Hideyuki; Nakajima, Shoichi; Udagawa, Shunichi; Kawai, Kenichi  
 CORPORATE SOURCE: Fac. Pharm. Sci., Hoshi Univ., Tokyo, 142, Japan

10584234

SOURCE: Journal of the Chemical Society, Perkin Transactions 1: Organic and Bio-Organic Chemistry (1972-1999) (1987), (8), 1735-8  
CODEN: JCPRB4; ISSN: 0300-922X

DOCUMENT TYPE: Journal

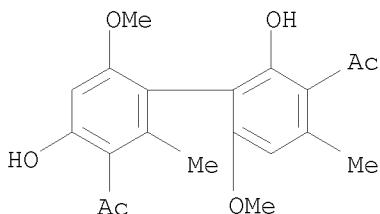
LANGUAGE: English

OTHER SOURCE(S): CASREACT 107:130568

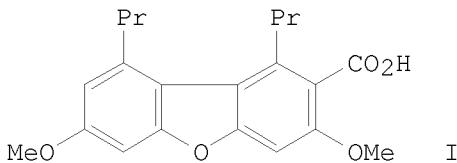
IT 110325-66-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 110325-66-1 CAPLUS

CN Ethanone, 1,1'-(2,4'-dihydroxy-6,6'-dimethoxy-2',4-dimethyl[1,1'-biphenyl]-3,3'-diyl)bis- (9CI) (CA INDEX NAME)



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AB Subdidymic acid (I) was prepared by unambiguous synthesis from 3,5-(MeO)2C6H3Pr by iodination, dimerization, ring closure of 2,4,6-Pr(MeO)2C6H2C6H2(OMe)2Pr-4,6,2 and introduction of the CO2H group.

ACCESSION NUMBER: 1986:533621 CAPLUS

DOCUMENT NUMBER: 105:133621

ORIGINAL REFERENCE NO.: 105:21557a, 21560a

TITLE: Synthesis of the lichen dibenzofuran subdidymic acid

AUTHOR(S): Elix, John A.; Kennedy, John M.

CORPORATE SOURCE: Dep. Chem., Aust. Natl. Univ., Canberra, 2601, Australia

SOURCE: Australian Journal of Chemistry (1985), 38(12), 1857-61

DOCUMENT TYPE: Journal

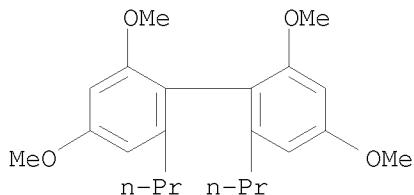
LANGUAGE: English

OTHER SOURCE(S): CASREACT 105:133621

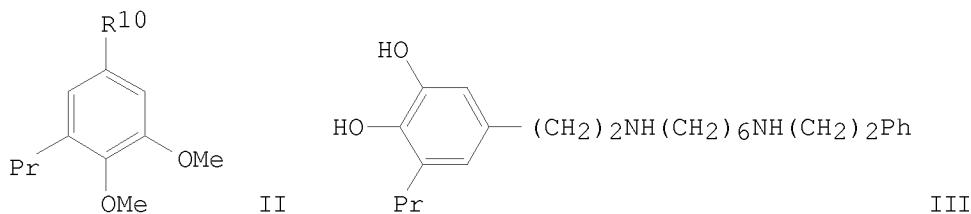
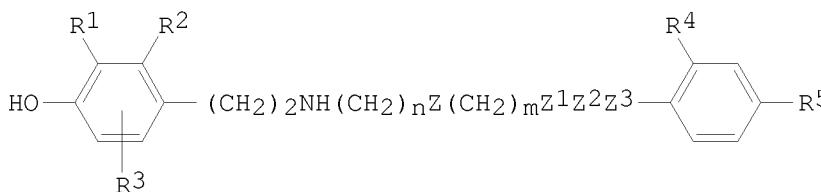
IT 104307-43-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, as intermediate for subdidymic acid)

RN 104307-43-9 CAPLUS

CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dipropyl- (CA INDEX NAME)



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AB Hydroxyphenethylamine derivs. I [R1 = OH, F, CH<sub>2</sub>R<sub>6</sub>, (un)substituted NH<sub>2</sub>; R<sub>2</sub>, R<sub>3</sub> = H, F, Cl, Br, alkyl, NO<sub>2</sub>, cyano, (CH<sub>2</sub>)<sub>x</sub>R<sub>7</sub>, SR<sub>7</sub>; R<sub>1</sub>R<sub>2</sub> = N:CHCH:CH, N:C(OH)CH:CH, NHCOCH<sub>2</sub>, o-NHC<sub>6</sub>H<sub>4</sub>; R<sub>4</sub> = H; R<sub>5</sub> = H, Cl; R<sub>6</sub> = H, OH, alkyl, alkylsulfonyl; R<sub>7</sub> = Ph, C<sub>6</sub>H<sub>4</sub>OH; Z = bond, C<sub>6</sub>H<sub>4</sub>, CH:CH, 1,4-cyclohexanediyl; Z<sub>1</sub> = NH, O, S, SO<sub>2</sub>, CO, CH<sub>2</sub>, CONH, CO<sub>2</sub>; Z<sub>2</sub> = (CH<sub>2</sub>)<sub>y</sub>, CO, CS, SO<sub>2</sub>, CH<sub>2</sub>CO, CHR<sub>8</sub>CH<sub>2</sub>, (R<sub>8</sub>R<sub>4</sub> = CH<sub>2</sub>) CH<sub>2</sub>CH<sub>2</sub> (un)substituted by 1-4 alkyls; Z<sub>3</sub> = NR<sub>9</sub> (R<sub>9</sub> = H, alkyl), CH<sub>2</sub>, O, CO, S, SO<sub>2</sub>, bond; n, m = 1-4; x = 0-3; y = 1-3] were prepared. Thus, aldehyde II (R<sub>10</sub> = CHO) was reduced by NaBH<sub>4</sub> to give II (R<sub>10</sub> = CH<sub>2</sub>OH), which was treated with SOCl<sub>2</sub> to give II (R<sub>10</sub> = CH<sub>2</sub>Cl). Cyanation of the chloride by NaCN in Me<sub>2</sub>SO gave II (R<sub>10</sub> = CH<sub>2</sub>CN), which was reduced by BH<sub>3</sub>-THF to II (R<sub>10</sub> = CH<sub>2</sub>CH<sub>2</sub>NH<sub>2</sub>). Condensation of the amine with PhCH<sub>2</sub>CH<sub>2</sub>NHCO(CH<sub>2</sub>)<sub>4</sub>CO<sub>2</sub>H using N,N'-carbonyldiimidazole in CH<sub>2</sub>C<sub>12</sub> gave II [R<sub>10</sub> = (CH<sub>2</sub>)<sub>2</sub>NHCO(CH<sub>2</sub>)<sub>4</sub>CONH(CH<sub>2</sub>)<sub>2</sub>Ph], which was reduced by BH<sub>3</sub>-THF to II [R<sub>10</sub> = (CH<sub>2</sub>)<sub>2</sub>NH(CH<sub>2</sub>)<sub>6</sub>NH(CH<sub>2</sub>)<sub>2</sub>Ph]. Cleavage of the di-Me ether by 48% aqueous HBr containing H<sub>3</sub>PO<sub>2</sub> gave the diamine III. I act on peripheral and/or central dopamine receptors, thereby lowering blood pressure, reducing heart rate, and increasing renal blood flow. Some I exhibit cardiotonistimulant and bronchodilator effects (no data).

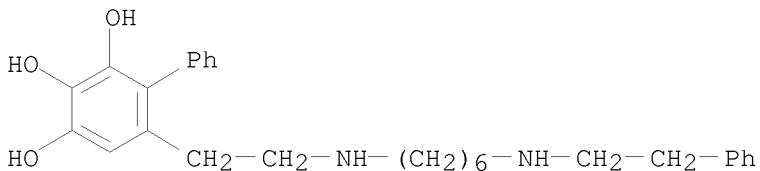
ACCESSION NUMBER: 1986:5631 CAPLUS  
DOCUMENT NUMBER: 104:5631  
ORIGINAL REFERENCE NO.: 104:1022h,1023a  
TITLE: Phenylethylamines and compositions containing them  
INVENTOR(S): Dixon, John; Ince, Francis; Tinker, Alan Charles

10584234

PATENT ASSIGNEE(S): Fisons PLC, UK  
SOURCE: Eur. Pat. Appl., 120 pp.  
CODEN: EPXXDW  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 142283	A2	19850522	EP 1984-307102	19841017 <--
EP 142283	A3	19860604		
EP 142283	B1	19910130		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
EP 375668	A2	19900627	EP 1990-200019	19841017 <--
EP 375668	A3	19901017		
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
AT 60573	T	19910215	AT 1984-307102	19841017 <--
US 4657929	A	19870414	US 1984-662348	19841018 <--
US 4720586	A	19880119	US 1984-662393	19841018 <--
CA 1258459	A1	19890815	CA 1984-465937	19841019 <--
ZA 8408247	A	19850828	ZA 1984-8247	19841022 <--
AU 8434594	A	19850509	AU 1984-34594	19841023 <--
AU 581415	B2	19890223		
DK 8405070	A	19850426	DK 1984-5070	19841024 <--
FI 8404170	A	19850426	FI 1984-4170	19841024 <--
NO 8404243	A	19850426	NO 1984-4243	19841024 <--
NO 158460	B	19880606		
NO 158460	C	19880914		
JP 60115553	A	19850622	JP 1984-222336	19841024 <--
ES 537029	A1	19860616	ES 1984-537029	19841024 <--
IL 73322	A	19890131	IL 1984-73322	19841025 <--
US 4791216	A	19881213	US 1986-938249	19861205 <--
US 4803225	A	19890207	US 1987-127366	19871202 <--
US 4885313	A	19891205	US 1987-127365	19871202 <--
US 4868306	A	19890919	US 1988-260529	19881021 <--
PRIORITY APPLN. INFO.:			GB 1983-28489	A 19831025 <--
			GB 1983-28490	A 19831025 <--
			GB 1983-32447	A 19831206 <--
			GB 1983-32448	A 19831206 <--
			GB 1983-32452	A 19831206 <--
			GB 1984-1746	A 19840124 <--
			GB 1984-1747	A 19840124 <--
			GB 1984-1748	A 19840124 <--
			GB 1984-1750	A 19840124 <--
			EP 1984-307102	P 19841017 <--
			US 1984-662348	A3 19841018 <--
			US 1984-662393	A3 19841018 <--
			US 1986-938249	A1 19861205 <--

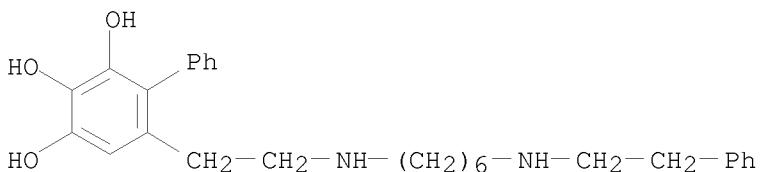
OTHER SOURCE(S): MARPAT 104:5631  
IT 99425-47-5P 99426-80-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 99425-47-5 CAPLUS  
CN [1,1'-Biphenyl]-2,3,4-triol, 6-[2-[[6-[(2-phenylethyl)amino]hexyl]amino]ethyl], dihydrobromide (9CI) (CA INDEX NAME)



● 2 HBr

RN 99426-80-9 CAPLUS

CN [1,1'-Biphenyl]-2,3,4-triol, 6-[2-[(6-[(2-phenylethyl)amino]hexyl)amino]ethyl]- (CA INDEX NAME)



L18 ANSWER 45 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB In a study of pathways of metabolism of cannabinoids by microorganisms, in which olivetol served as an exptl. model of the n-pentylresorcinol moiety, *F. roseum* appeared to metabolize only the aromatic portion of the mol. *F. roseum* Was capable of biotransforming olivetol to form metabolites both more and less polar than the starting material. After a time-course study indicated the optimal length of incubation, a prepare-scale fermentation was performed to isolate sufficient quantities of metabolites for structure determination Two metabolites of olivetol were isolated and identified as mono-Me

olivetol and 2,2',4,4'-tetrahydroxy-6,6'-dipentylbiphenyl.

ACCESSION NUMBER: 1985:592864 CAPLUS

DOCUMENT NUMBER: 103:192864

ORIGINAL REFERENCE NO.: 103:31000h,31001a

TITLE: Microbial transformation of olivetol by *Fusarium roseum*

AUTHOR(S): McClanahan, Robert H.; Robertson, Larry W.

CORPORATE SOURCE: Coll. Pharm., Ohio State Univ., Columbus, OH, 43210, USA

SOURCE: Journal of Natural Products (1985), 48(4), 660-3

CODEN: JNPRDF; ISSN: 0163-3864

DOCUMENT TYPE: Journal

LANGUAGE: English

OTHER SOURCE(S): CASREACT 103:192864

IT 98985-63-8

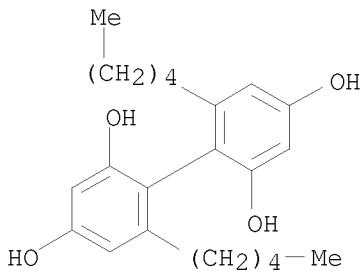
RL: FORM (Formation, nonpreparative)

(formation of, by *Fusarium roseum*, in biotransformation of olivetol)

RN 98985-63-8 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dipentyl- (CA INDEX NAME)

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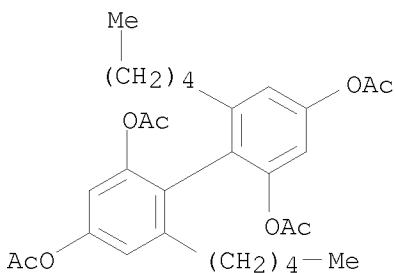


IT 98985-64-9P

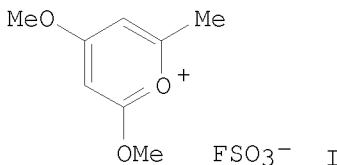
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 98985-64-9 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dipentyl-, tetraacetate (9CI) (CA INDEX NAME)



L18 ANSWER 46 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
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AB Following attack by nucleophiles, various methoxypyrylium compds. derived from 2H-pyran-2-ones and 4H-pyran-4-ones reacted either to produce enol ethers of linear  $\beta$ -polycarbonyl derivs. or to form methylene-2H-pyrans. The linear polycarbonyl derivs. underwent biomimetic cyclization to form polyketide aromatic systems. Treatment of the pyrylium salt I with EtO<sub>2</sub>CCH<sub>2</sub>PO(OMe)<sub>2</sub> and NaH in THF at room temperature for 18 h gave 2,4,6-Me(MeO)C<sub>6</sub>H<sub>2</sub>CO<sub>2</sub>Et.

ACCESSION NUMBER: 1984:551526 CAPLUS

DOCUMENT NUMBER: 101:151526

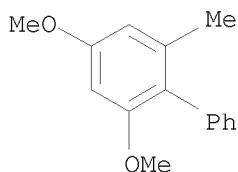
ORIGINAL REFERENCE NO.: 101:22930h, 22931a

TITLE: Biomimetic syntheses of polyketide aromatics from pyrylium salts

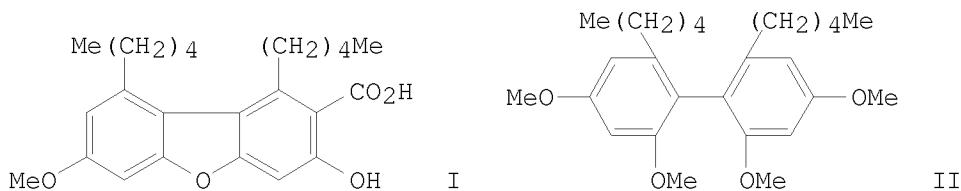
AUTHOR(S): Griffin, David A.; Leeper, Finian J.; Staunton, James

10584234

CORPORATE SOURCE: Chem. Lab., Univ. Cambridge, Cambridge, CB2 1EW, UK  
SOURCE: Journal of the Chemical Society, Perkin Transactions  
1: Organic and Bio-Organic Chemistry (1972-1999) (1984), (5), 1035-42  
CODEN: JCPRB4; ISSN: 0300-922X  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 92120-51-9P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of, biomimetic)  
RN 92120-51-9 CAPLUS  
CN 1,1'-Biphenyl, 2,4-dimethoxy-6-methyl- (CA INDEX NAME)

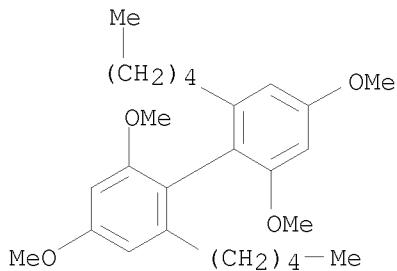


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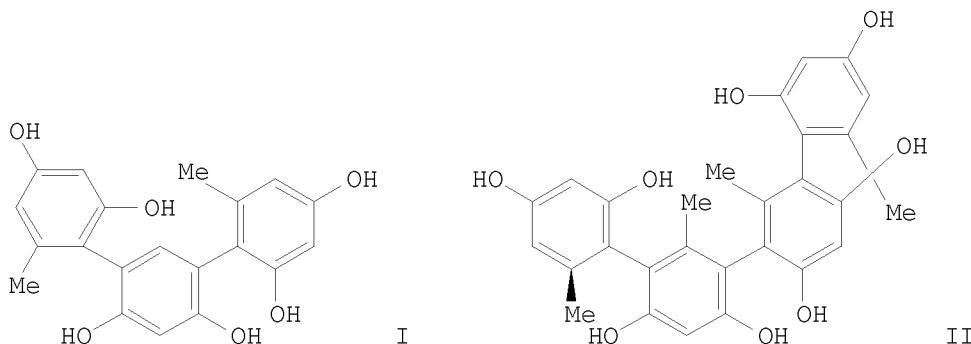


AB The dibenzofuran condidymic acid (I) was prepared by unambiguous synthesis from 3,5-(MeO)2C6H3(CH<sub>2</sub>)<sub>4</sub>Me via the biphenyl II, and shown to co-occur with barbatic, thamnolic and didymic acids in Cladonia squamosula.

ACCESSION NUMBER: 1981:619927 CAPLUS  
DOCUMENT NUMBER: 95:219927  
ORIGINAL REFERENCE NO.: 95:36693a, 36696a  
TITLE: Condidymic acid, a new dibenzofuran from the lichen Cladonia squamosula  
AUTHOR(S): Chester, Douglas O.; Elix, John A.  
CORPORATE SOURCE: Dep. Chem., Australian Natl. Univ., Canberra, 2600, Australia  
SOURCE: Australian Journal of Chemistry (1981), 34(7), 1501-6  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 79987-64-7P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation, demethylation, and cyclization of)  
RN 79987-64-7 CAPLUS  
CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dipentyl- (CA INDEX NAME)



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AB The relative and absolute configuration of optical isomers of terphenyl derivs. I and quaterphenyl derivs. II, obtained from orcinol by oxidative coupling were determined

ACCESSION NUMBER: 1979:419739 CAPLUS

DOCUMENT NUMBER: 91:19739

ORIGINAL REFERENCE NO.: 91:3293a,3296a

TITLE: The absolute configuration and optical rotation of ter- and quaterphenyl derivatives of orcin

AUTHOR(S): Hess, Heinrich; Musso, Hans

CORPORATE SOURCE: Inst. Org. Chem., Univ. Karlsruhe, Karlsruhe, D-7500/1, Fed. Rep. Ger.

SOURCE: Liebigs Annalen der Chemie (1979), (3), 431-7

CODEN: LACHDL; ISSN: 0170-2041

DOCUMENT TYPE: Journal

LANGUAGE: German

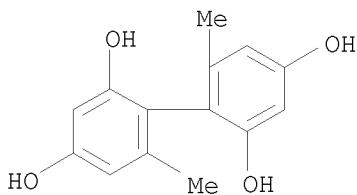
IT 21255-80-1 54440-25-4

RL: RCT (Reactant); RACT (Reactant or reagent)  
(oxidative coupling of, with orcinol, configuration of optical isomers from)

RN 21255-80-1 CAPLUS

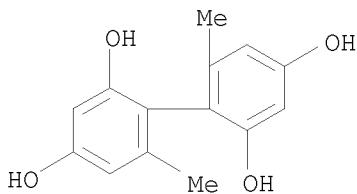
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)

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RN 54440-25-4 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1R)- (9CI) (CA INDEX NAME)

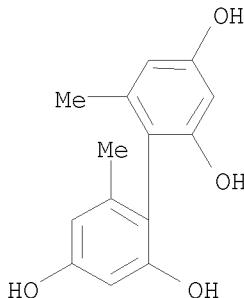


IT 4946-96-7P 54440-26-5P 54440-29-8P  
54483-11-3P 54483-14-6P 54483-17-9P  
54483-21-5P 67314-20-9P 67314-21-0P  
67314-22-1P 67314-23-2P 67314-24-3P  
67314-25-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

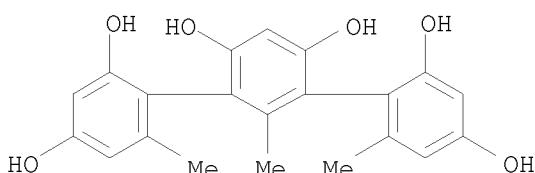
RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



RN 54440-26-5 CAPLUS

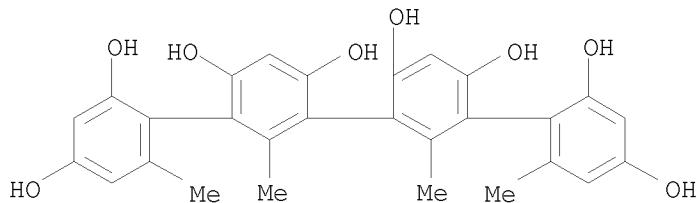
CN [1,1':3',1'''-Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6'''-trimethyl-,  
(R\*,R\*)- (9CI) (CA INDEX NAME)



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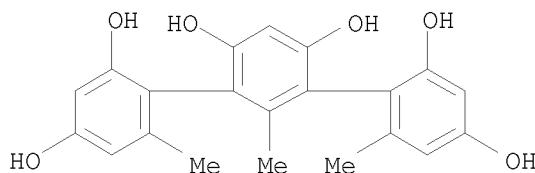
RN 54440-29-8 CAPLUS

CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4'',6',6''-octol,  
2',2'',6,6''-tetramethyl-, (R\*,R\*,R\*)- (9CI) (CA INDEX NAME)



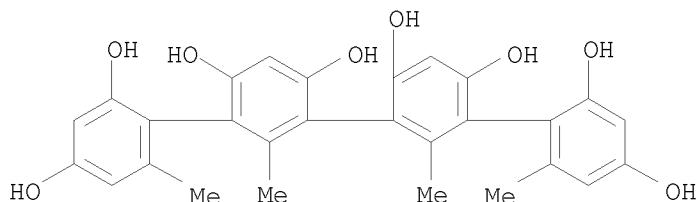
RN 54483-11-3 CAPLUS

CN [1,1':3',1'':3'',1''''-Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6''-trimethyl-,  
(R\*,S\*)- (9CI) (CA INDEX NAME)



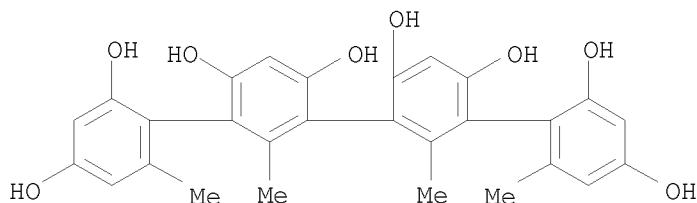
RN 54483-14-6 CAPLUS

CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4'',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



RN 54483-17-9 CAPLUS

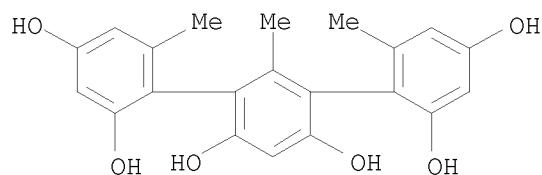
CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4'',6',6''-octol,  
2',2'',6,6''-tetramethyl-, (R\*,S\*,S\*)- (9CI) (CA INDEX NAME)



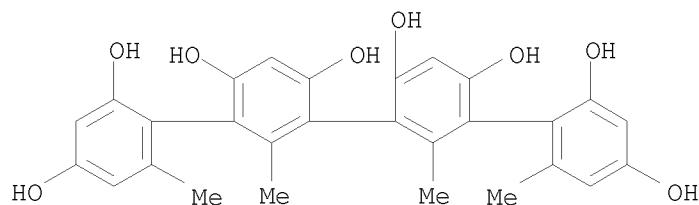
RN 54483-21-5 CAPLUS

CN [1,1':3',1'':3'',1''''-Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6''-trimethyl-,  
stereoisomer (9CI) (CA INDEX NAME)

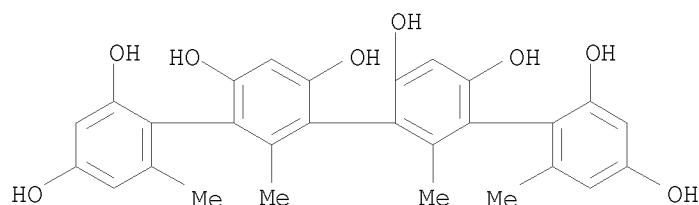
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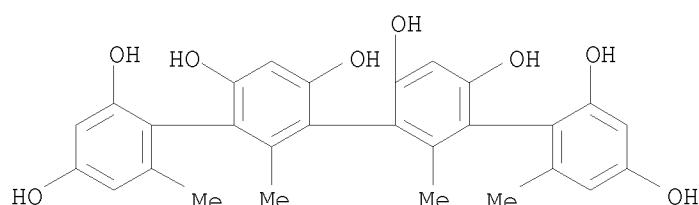
RN 67314-20-9 CAPLUS  
CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2''',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



RN 67314-21-0 CAPLUS  
CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2''',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)

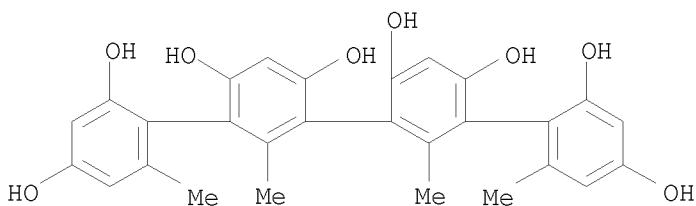


RN 67314-22-1 CAPLUS  
CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2''',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



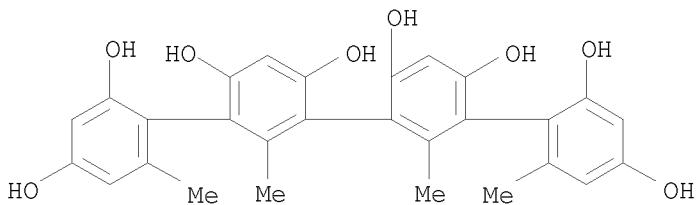
RN 67314-23-2 CAPLUS  
CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2''',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)

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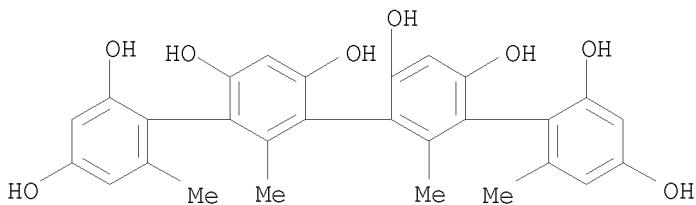
RN 67314-24-3 CAPLUS

CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2''',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



RN 67314-25-4 CAPLUS

CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2''',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



L18 ANSWER 49 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB Six enantiomeric mixts., e.g., ( $\pm$ )-6,6'-dinitrodiphenic acid and ( $\pm$ )-6,6'-dimethyl-2,2',4,4'-biphenyltetrol, were completely separation by liquid chromatog. in a potato starch-filled column, using aqueous buffer solns. as eluents; the proper choice and concentration of buffer solution was important.

ACCESSION NUMBER: 1978:563181 CAPLUS

DOCUMENT NUMBER: 89:163181

ORIGINAL REFERENCE NO.: 89:25281a,25284a

TITLE: Complete separation of enantiomers by chromatography on potato starch

AUTHOR(S): Hess, Heinrich; Burger, Guenther; Musso, Hans

CORPORATE SOURCE: Inst. Org. Chem., Univ. Karlsruhe, Karlsruhe, Fed. Rep. Ger.

SOURCE: Angewandte Chemie (1978), 90(8), 645-6

CODEN: ANCEAD; ISSN: 0044-8249

DOCUMENT TYPE: Journal

LANGUAGE: German

IT 21255-80-1P 54440-25-4P 54440-26-5P

54483-11-3P 54483-21-5P 67314-20-9P

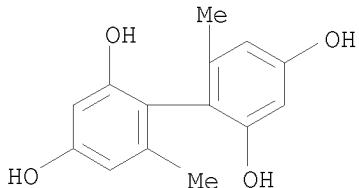
67314-21-0P 67314-23-2P 67314-24-3P

10584234

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

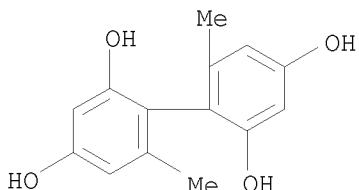
RN 21255-80-1 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)



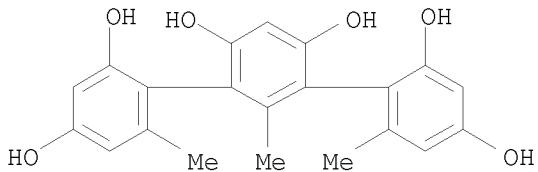
RN 54440-25-4 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1R)- (9CI) (CA INDEX NAME)



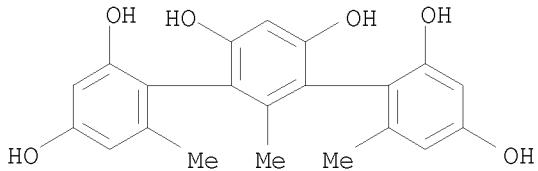
RN 54440-26-5 CAPLUS

CN [1,1':3',1'''-Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6'''-trimethyl-, (R\*,R\*)- (9CI) (CA INDEX NAME)



RN 54483-11-3 CAPLUS

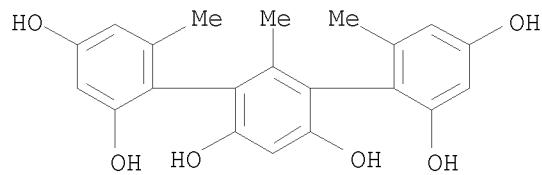
CN [1,1':3',1'''-Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6'''-trimethyl-, (R\*,S\*)- (9CI) (CA INDEX NAME)



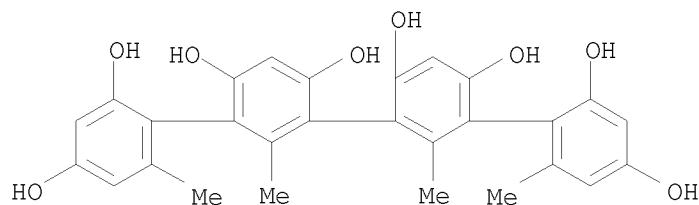
RN 54483-21-5 CAPLUS

CN [1,1':3',1'''-Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6'''-trimethyl-, stereoisomer (9CI) (CA INDEX NAME)

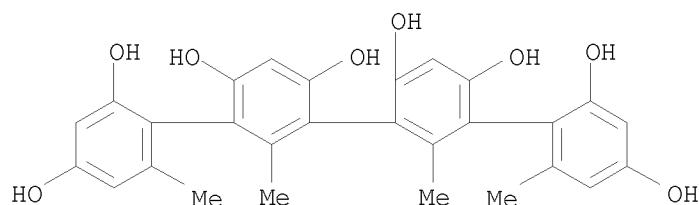
10584234



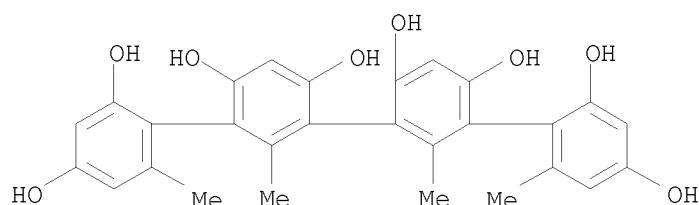
RN 67314-20-9 CAPLUS  
CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



RN 67314-21-0 CAPLUS  
CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)

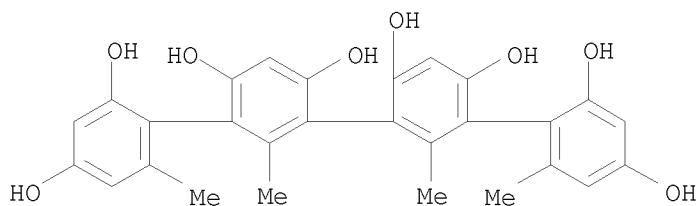


RN 67314-23-2 CAPLUS  
CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



RN 67314-24-3 CAPLUS  
CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)

10584234



IT 4946-96-7 54440-29-8 54483-14-6

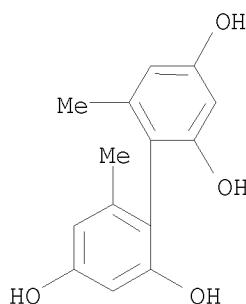
67314-25-4

RL: PROC (Process)

(resolution of, by chromatog. on potato starch column)

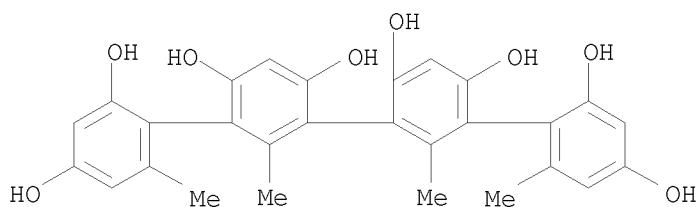
RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



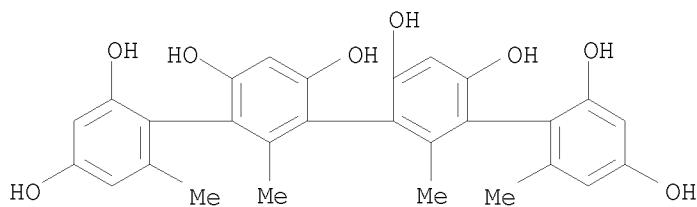
RN 54440-29-8 CAPLUS

CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4'',6',6''-octol,  
2',2'',6,6''-tetramethyl-, (R\*,R\*,R\*)- (9CI) (CA INDEX NAME)



RN 54483-14-6 CAPLUS

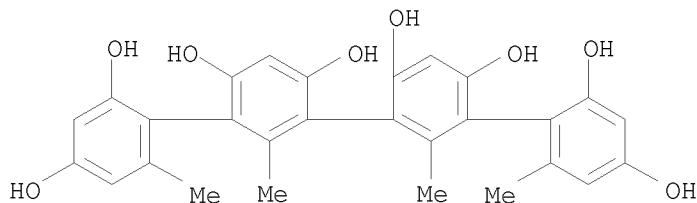
CN [1,1':3',1'':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4'',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



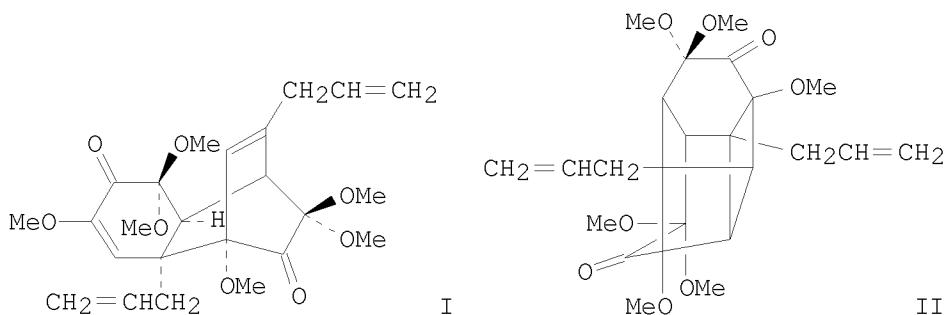
RN 67314-25-4 CAPLUS

10584234

CN [1,1':3',1'':3'',1''':Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)

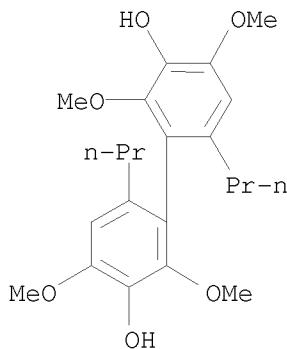


L18 ANSWER 50 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI



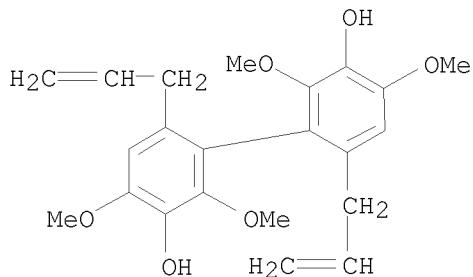
AB Isolation and structures of two novel neolignans, asatone (I) and isoasatone (II), are described. The structure of II was established by x-ray crystallogr. anal. of its dihydroxy derivative and chemical and spectral data. Thermal and photochem. reactions of these neolignans and their derivs. were carried out. Thus, asatone was photochem. converted into isoasatone.

ACCESSION NUMBER: 1977:29401 CAPLUS  
DOCUMENT NUMBER: 86:29401  
ORIGINAL REFERENCE NO.: 86:4691a, 4694a  
TITLE: The structures of two novel neolignans, asatone and isoasatone  
AUTHOR(S): Yamamura, Shosuke; Terada, Yukimasa; Chen, Yuh-Pan;  
Hong, Mina; Hsu, Hong-Yen; Sasaki, Kyoyu; Hirata,  
Yoshimasa  
CORPORATE SOURCE: Fac. Pharm., Meijo Univ., Nagoya, Japan  
SOURCE: Bulletin of the Chemical Society of Japan (1976), 49(7), 1940-8  
CODEN: BCSJA8; ISSN: 0009-2673  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 38451-67-1P 51895-33-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 38451-67-1 CAPLUS  
CN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6,6'-dipropyl- (CA INDEX NAME)



RN 51895-33-1 CAPLUS

CN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6,6'-di-2-propenyl- (9CI) (CA INDEX NAME)



L18 ANSWER 51 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB Photolysis of several substituted 2-iododibenzylamine hydrochlorides in aqueous solution provided convenient syntheses of the corresponding 6,7-dihydro-5H-dibenz[c,e]azepines in useful yields. Thus, irradiation of o-IC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NHCH<sub>2</sub>Pb gave 57% dibenzazepine I. Irradiation of o-IC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NHCH<sub>2</sub>C<sub>6</sub>H<sub>3</sub>(OMe)<sub>2</sub>-3.5 yielded only 2,4,6-(MeO)<sub>2</sub>CHOCH<sub>2</sub>C<sub>6</sub>H<sub>2</sub>C<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>OH-o together with a small amount of dibenzoxepine II. Photolysis of three N-(2-halogenobenzyl)-β-phenethylamine hydrochlorides provided convenient syntheses of the corresponding 5,6,7,8-tetrahydridobenz[c,e]azocines. Thus, irradiation of O-IC<sub>6</sub>H<sub>4</sub>CH<sub>2</sub>NHCH<sub>2</sub>CH<sub>2</sub>Pb gave 33% dibenzazocine III. NMR examination of the dibenzazocines confirmed that they existed in a skewed biphenyl conformation, and that inversion of the system by rotation through the planar biphenyl was hindered.

ACCESSION NUMBER: 1975:578785 CAPLUS

DOCUMENT NUMBER: 83:178785

ORIGINAL REFERENCE NO.: 83:28069a,28072a

TITLE: Photochemical synthesis of 6,7-dihydro-5H-dibenz[c,e]azepine and 5,6,7,8-tetrahydridobenz[c,e]azocine derivatives

AUTHOR(S): Jeffs, P. W.; Hansen, J. F.; Brine, G. A.

CORPORATE SOURCE: Paul M. Gross Chem. Lab., Duke Univ., Durham, NC, USA

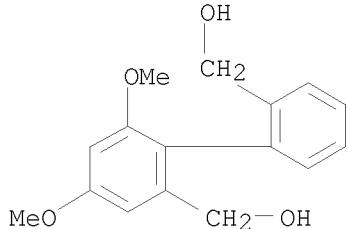
SOURCE: Journal of Organic Chemistry (1975), 40(20), 2883-90

DOCUMENT TYPE: CODEN: JOCEAH; ISSN: 0022-3263

LANGUAGE: English

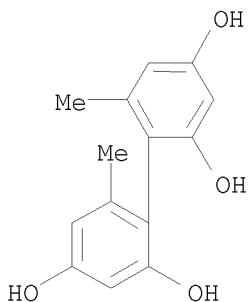
10584234

OTHER SOURCE(S): CASREACT 83:178785  
IT 56008-52-7P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 56008-52-7 CAPLUS  
CN [1,1'-Biphenyl]-2,2'-dimethanol, 4,6-dimethoxy- (CA INDEX NAME)

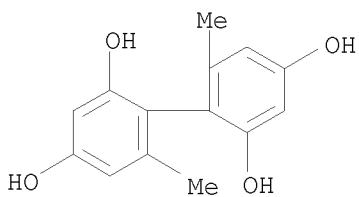


L18 ANSWER 52 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI For diagram(s), see printed CA Issue.  
AB In contrast to static conditions oxidation of orcinol (I) by alkaline K3Fe(CN)6 in a flow system gave 35% dimer II (R = H) (III), smaller amts. of stereoisomeric trimers II [R = 6,2,4-Me(HO)2-C6H2] and stereoisomeric tetramers II [R = 3,2,4,6-R1Me(HO)2-C6H, R1 = 6,2,4-Me(HO)2C6H2] (IV) and practically no polymers. Similarly, III gave 50% mixture of all diastereomeric IV. The exclusive o,o'-coupling found in all products was related to the spin distribution of the unpaired electron in the radical of I.  
ACCESSION NUMBER: 1975:57470 CAPLUS  
DOCUMENT NUMBER: 82:57470  
ORIGINAL REFERENCE NO.: 82:9187a, 9190a  
TITLE: Oxidation of orcinol with potassium hexacyanoferrate(III) in a flow system  
AUTHOR(S): Haynes, Richard K.; Hess, Heinrich; Musso, Hans  
CORPORATE SOURCE: Inst. Org. Chem., Univ. Karlsruhe, Karlsruhe, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1974), 107(12), 3733-48  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
IT 4946-96-7P 54440-25-4P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(preparation and oxidation of)  
RN 4946-96-7 CAPLUS  
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)

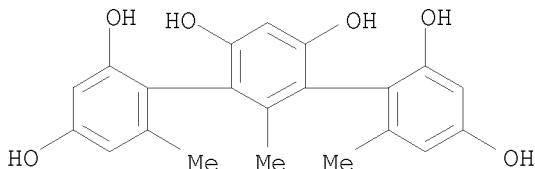
10584234



RN 54440-25-4 CAPLUS  
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1R)- (9CI) (CA INDEX NAME)

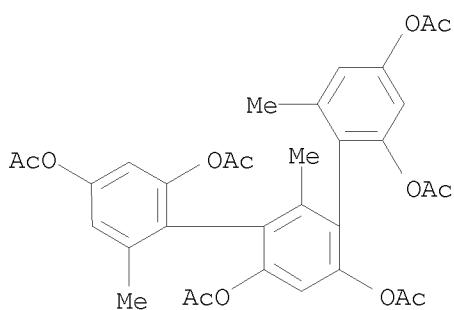


IT 54440-26-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation and resolution of)  
RN 54440-26-5 CAPLUS  
CN [1,1':3',1'''-Terphenyl]-2,2'',4,4'',6''-hexol, 2',6,6'''-trimethyl-,  
(R\*,R\*)- (9CI) (CA INDEX NAME)



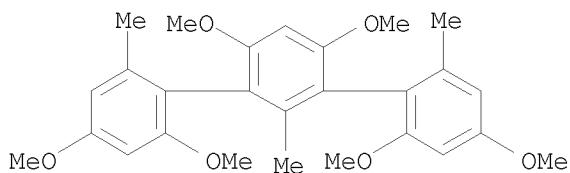
IT 54440-27-6P 54440-28-7P 54440-29-8P  
54440-30-1P 54440-31-2P 54483-11-3P  
54483-12-4P 54483-13-5P 54483-14-6P  
54483-15-7P 54483-16-8P 54483-17-9P  
54483-18-0P 54483-19-1P 54483-21-5P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 54440-27-6 CAPLUS  
CN [1,1':3',1'''-Terphenyl]-2,2'',4,4'',6''-hexol, 2',6,6'''-trimethyl-,  
hexaacetate, (R\*,R\*)- (9CI) (CA INDEX NAME)

10584234



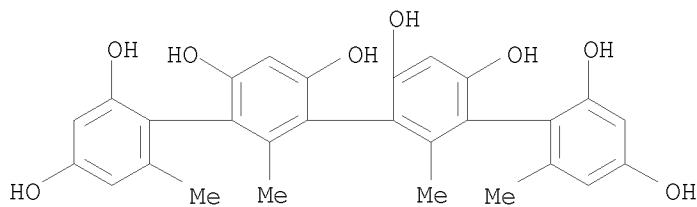
RN 54440-28-7 CAPLUS

CN 1,1':3',1''-Terphenyl, 2,2',4,4',4'',6'-hexamethoxy-2',6,6''-trimethyl-,  
(R\*,R\*)- (9CI) (CA INDEX NAME)



RN 54440-29-8 CAPLUS

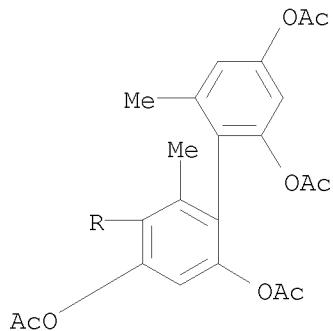
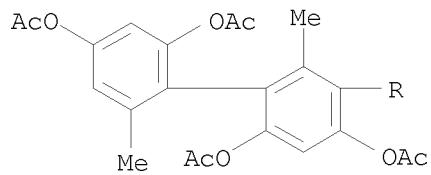
CN [1,1':3',1''-3'',1''-Quaterphenyl]-2,2',4,4',4'',4'',6',6''-octol,  
2',2'',6,6''-tetramethyl-, (R\*,R\*,R\*)- (9CI) (CA INDEX NAME)



RN 54440-30-1 CAPLUS

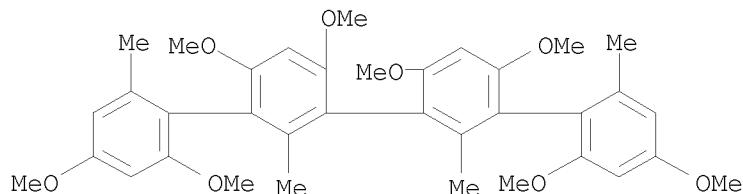
CN [1,1':3',1''-3'',1''-Quaterphenyl]-2,2',4,4',4'',4'',6',6''-octol,  
2',2'',6,6''-tetramethyl-, octaacetate, (R\*,R\*,R\*)- (9CI) (CA INDEX  
NAME)

10584234



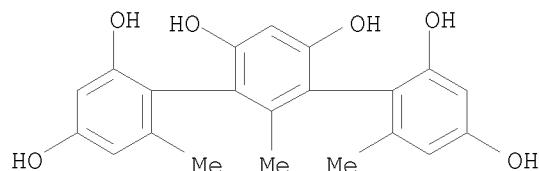
RN 54440-31-2 CAPLUS

CN [1,1':3',1'':3'',1''':Quaterphenyl, 2,2'',4,4',4'',4''',6',6'':octamethoxy-2'',2'',6,6'':tetramethyl-, (R\*,R\*,R\*)- (9CI) (CA INDEX NAME)



RN 54483-11-3 CAPLUS

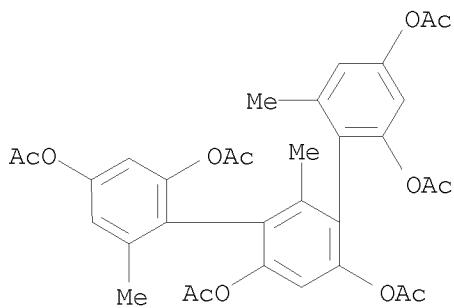
CN [1,1':3',1'':Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6'':trimethyl-, (R\*,S\*)- (9CI) (CA INDEX NAME)



RN 54483-12-4 CAPLUS

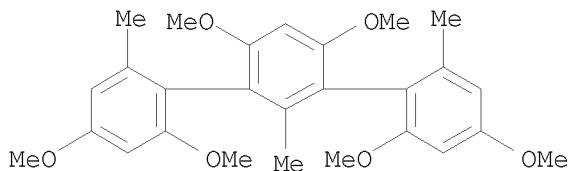
CN [1,1':3',1'':Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6'':trimethyl-, hexaacetate, (R\*,S\*)- (9CI) (CA INDEX NAME)

10584234



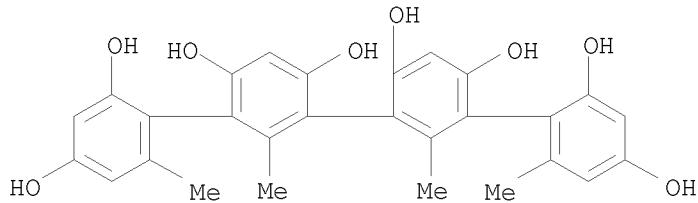
RN 54483-13-5 CAPLUS

CN 1,1':3',1''-Terphenyl, 2,2'',4,4',4'',6'-hexamethoxy-2',6,6''-trimethyl-,  
(R\*,S\*)- (9CI) (CA INDEX NAME)



RN 54483-14-6 CAPLUS

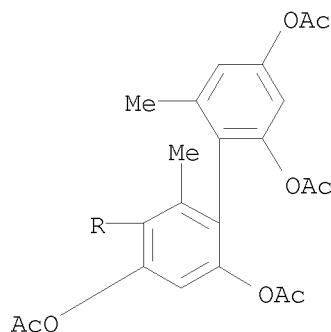
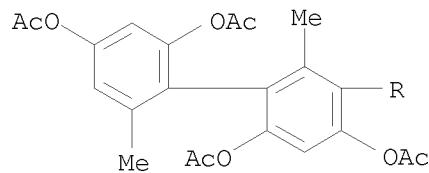
CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



RN 54483-15-7 CAPLUS

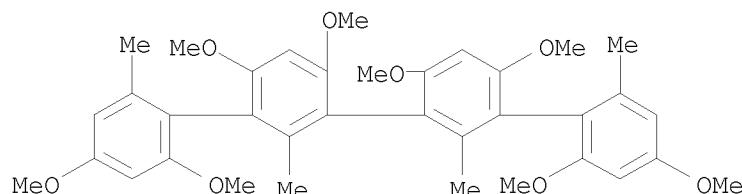
CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6''-tetramethyl-, octaacetate, stereoisomer (9CI) (CA INDEX  
NAME)

10584234



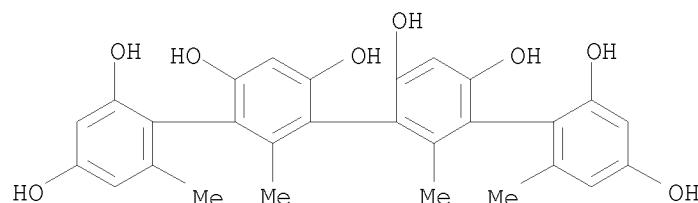
RN 54483-16-8 CAPLUS

CN [1,1':3',1''':3'',1''''-Quaterphenyl, 2,2'',4,4',4'',4''',6',6''-octamethoxy-  
2',2'',6,6'''-tetramethyl-, stereoisomer (9CI) (CA INDEX NAME)



RN 54483-17-9 CAPLUS

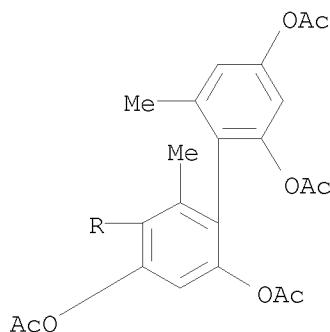
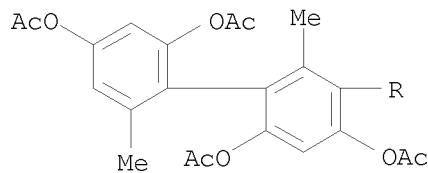
CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6'''-tetramethyl-, (R\*,S\*,S\*)- (9CI) (CA INDEX NAME)



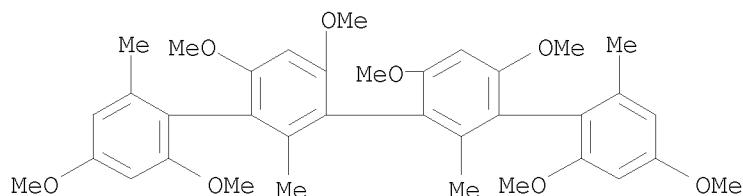
RN 54483-18-0 CAPLUS

CN [1,1':3',1''':3'',1''''-Quaterphenyl]-2,2'',4,4',4'',4''',6',6''-octol,  
2',2'',6,6'''-tetramethyl-, octaacetate, (R\*,S\*,S\*)- (9CI) (CA INDEX  
NAME)

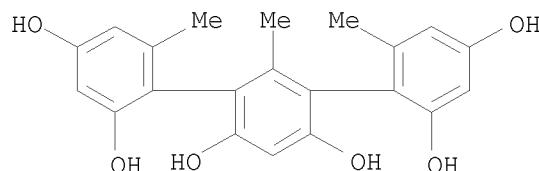
10584234



RN 54483-19-1 CAPLUS  
CN [1,1':3',1'''-3'',1''''-Quaterphenyl, 2,2'',4,4',4'',4''',6',6''-octamethoxy-  
2',2'',6,6''-tetramethyl-, (R\*,S\*,S\*)- (9CI) (CA INDEX NAME)



RN 54483-21-5 CAPLUS  
CN [1,1':3',1'''-Terphenyl]-2,2'',4,4',4'',6'-hexol, 2',6,6''-trimethyl-,  
stereoisomer (9CI) (CA INDEX NAME)

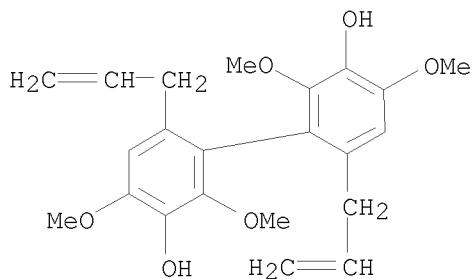


L18 ANSWER 53 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
GI For diagram(s), see printed CA Issue.  
AB Isoasatone (I) with Zn-HCl-MeOH gave 12% biphenyl (II) and 46%  
2,6-dimethoxy-4-allylphenol (III), suggesting that I is biosynthesized  
from III.

ACCESSION NUMBER: 1974:132897 CAPLUS  
DOCUMENT NUMBER: 80:132897  
ORIGINAL REFERENCE NO.: 80:21425a, 21428a  
TITLE: Isoasatone

10584234

AUTHOR(S): Yamamura, Shosuke; Sasaki, Kyoyu; Hirata, Yoshimasa;  
Chen, Yuh-Pan; Hsu, Hong-Yen  
CORPORATE SOURCE: Fac. Pharm., Meijo Univ., Nagoya, Japan  
SOURCE: Tetrahedron Letters (1973), (49), 4877-80  
CODEN: TELEAY; ISSN: 0040-4039  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 51895-33-1P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)  
RN 51895-33-1 CAPLUS  
CN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6,6'-di-2-propenyl-  
(9CI) (CA INDEX NAME)



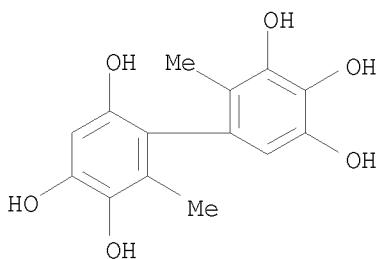
L18 ANSWER 54 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB EPR spectra were measured during oxidation of 2-methyl-, 2-isopropyl-, 2-butyl-, and 2-sec-butylhydroquinone in 20% aqueous KOH and aqueous MeOH-KOH. Iso-Pr, Bu, and sec-Bu derivs. gave primary radicals I which were gradually converted into the radicals II. The Me derivative underwent further oxidation to give the radical (III). The oxidation mechanism was discussed.

ACCESSION NUMBER: 1973:83598 CAPLUS  
DOCUMENT NUMBER: 78:83598  
ORIGINAL REFERENCE NO.: 78:13333a,13336a  
TITLE: Oxidation mechanism of 2-alkylhydroquinones investigated by the EPR method  
AUTHOR(S): Pilar, J.; Buben, I.; Pospisil, J.  
CORPORATE SOURCE: Ustav Makromol. Chem., Cesk. Akad. Ved, Prague, Czech.  
SOURCE: Collection of Czechoslovak Chemical Communications (1972), 37(11), 3599-606  
CODEN: CCCCAK; ISSN: 0010-0765  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
IT 40090-07-1P  
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT  
(Reactant or reagent)  
(preparation and oxidation of)  
RN 40090-07-1 CAPLUS  
CN [1,1'-Biphenyl]-2,3',4,4',5,5'-hexol, 2',6-dimethyl- (CA INDEX NAME)

10584234



L18 ANSWER 55 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB Hexane extraction of *Asarum taitonense* gave 0.2% asatone, shown to have structure I by spectral (NMR and mass) and chemical means.

ACCESSION NUMBER: 1972:487965 CAPLUS

DOCUMENT NUMBER: 77:87965

ORIGINAL REFERENCE NO.: 77:14509a,14512a

TITLE: Isolation and structure of asatone

AUTHOR(S): Chen, Yuh-Pan; Hong, Mina; Hsu, Hong-Yen; Yamamura, Shosuke; Hirata, Yoshimasa

CORPORATE SOURCE: Bristol Res. Inst. Taiwan, Taipei, Taiwan

SOURCE: Tetrahedron Letters (1972), (16), 1607-10

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

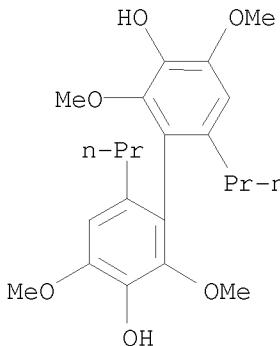
LANGUAGE: English

IT 38451-67-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 38451-67-1 CAPLUS

CN [1,1'-Biphenyl]-3,3'-diol, 2,2',4,4'-tetramethoxy-6,6'-dipropyl- (CA  
INDEX NAME)

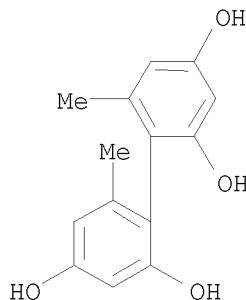


L18 ANSWER 56 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB Antibacterial tests against *Bacillus saprogenes*, which causes putrefaction of sake, were carried out on 22 diphenyl ether compds., 2 dibenzofuran compds., and 4 biphenyl compds. In diphenyl ether compds., 4 compds. with an OH group in 1 benzene ring and a Me in the other benzene ring, such as 2-hydroxy-2'-methyldiphenyl ether and 4-hydroxy-4'-methyldiphenyl ether, and a compound with a formyl and an OH in the same benzene ring, such as 4-formyl-2-hydroxydiphenyl ether, had antibacterial activity 4-8-fold that of salicylic acid and 2-4-fold that of Bu p-hydroxybenzoate. Substitution

of the Me group with carboxyl lowered the antibacterial activity. In biphenyl derivs., 2,2'- and 4,4'-di-hydroxybiphenyl had antibacterial activity 8-fold that of salicylic acid and 4-fold that of Bu p-hydroxybenzoate. Increasing nos. of OH groups lowered antibacterial activity. In dibenzofuran compds., 3,7-dihydroxydibenzofuran had twice the antibacterial activity of salicylic acid and was about comparable to Bu p-hydroxybenzoate. 3,7-Dihydroxy-1,9-dimethylbibenzofuran increased the antibacterial activity to 8-fold that of salicylic acid and 4-fold that of Bu p-hydroxybenzoate, showing that increased Me groups resulted in stronger antibacterial activity.

ACCESSION NUMBER: 1972:2525 CAPLUS  
 DOCUMENT NUMBER: 76:2525  
 ORIGINAL REFERENCE NO.: 76:469a,472a  
 TITLE: Antiseptics for foods. LXXII. Diphenyl ether derivatives, biphenyl derivatives, and dibenzofuran derivatives as a preservative for sake  
 AUTHOR(S): Fujikawa, Fukujiro; Hirayama, Teruhisa; Nakamura, Yukio; Matsuo, Sachio; Mizutani, Takayuki; Mikawa, Toyoaki; Suzuki, Mitsuko; Doi, Mieko; Niki, Chiyo; Toyota, Takeshi  
 CORPORATE SOURCE: Kyoto Coll. Pharm., Kyoto, Japan  
 SOURCE: Yakugaku Zasshi (1971), 91(9), 930-3  
 CODEN: YKKZAJ; ISSN: 0031-6903  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Japanese  
 IT 4946-96-7  
 RL: BIOL (Biological study)  
 (Bacillus sapogenes inhibition by)  
 RN 4946-96-7 CAPLUS  
 CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



L18 ANSWER 57 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
 AB Arylbenzohydroquinones and arylquinones, depending on the redox potential, were obtained together with 2-acetylbenzohydroquinone when 2-acetyl-1,4-benzoquinone (I) or 2-methoxycarbonyl-1,4-benzoquinone were treated with phenols, phenol ethers, amines, or hydrocarbons, in the presence of acid catalyst, preferably HOAc, H<sub>2</sub>CO<sub>2</sub>, F<sub>3</sub>CCO<sub>2</sub>H, or silica. Reaction of I with orcin gave 2-acetyl-3,3',6,6'-tetrahydroxy-2'-methylbiphenyl, which was oxidized to 2-acetyl-3-(2,4-dihydroxy-6-methylphenyl)-1,4-benzoquinone with Ag<sub>2</sub>O. 2-Acetyl-3-(4-methoxy-2-methylphenyl)-1,4-benzoquinone was obtained directly and intermediate isolation of the hydroquinone was not possible. Thirteen other hydroquinones and 23 quinones were similarly prepared

ACCESSION NUMBER: 1971:435291 CAPLUS  
 DOCUMENT NUMBER: 75:35291

10584234

ORIGINAL REFERENCE NO.:

75:5573a,5576a

TITLE:

New synthesis of substituted arylquinones by means of electrophilic substitution of phenols, phenol ethers, aromatic amines, and aromatic hydrocarbons by negatively substituted 1,4-benzoquinones

AUTHOR(S):

Kuser, P.; Inderbitzin, M.; Brauchli, J.; Eugster, C. H.

CORPORATE SOURCE:

Org.-Chem. Inst., Univ. Zurich, Zurich, Switz.

SOURCE:

Helvetica Chimica Acta (1971), 54(4), 980-95

CODEN: HCACAV; ISSN: 0018-019X

DOCUMENT TYPE:

Journal

LANGUAGE:

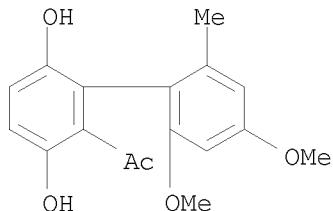
German

IT 32540-99-1P 32541-01-8P 32546-66-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

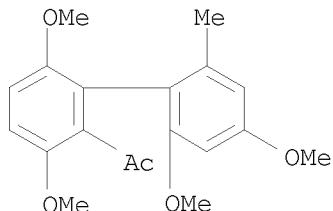
RN 32540-99-1 CAPLUS

CN Acetophenone, 2'-(4,6-dimethoxy-o-tolyl)-3',6'-dihydroxy- (8CI) (CA INDEX  
NAME)



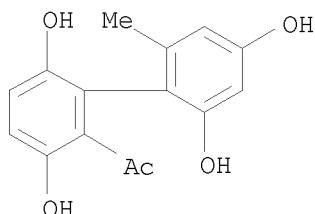
RN 32541-01-8 CAPLUS

CN Acetophenone, 2'-(4,6-dimethoxy-o-tolyl)-3',6'-dimethoxy- (8CI) (CA INDEX  
NAME)



RN 32546-66-0 CAPLUS

CN Acetophenone, 2'-(4,6-dihydroxy-o-tolyl)-3',6'-dihydroxy- (8CI) (CA INDEX  
NAME)



10584234

L18 ANSWER 58 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB Fungal metabolites from some *Alternaria* species are described. Structures for altenusin (I) and dehydroaltenusin (II) are proposed.

ACCESSION NUMBER: 1971:39132 CAPLUS

DOCUMENT NUMBER: 74:39132

ORIGINAL REFERENCE NO.: 74:6283a

TITLE: Metabolites of some *Alternaria* species. Structures of altenusin and dehydroaltenusin

AUTHOR(S): Coombe, Reginald G.; Jacobs, Jeff Joseph; Watson, Thomas R.

CORPORATE SOURCE: Pharm. Dep., Univ. Sydney, Sydney, Australia

SOURCE: Australian Journal of Chemistry (1970), 23(11), 2343-51

CODEN: AJCHAS; ISSN: 0004-9425

DOCUMENT TYPE: Journal

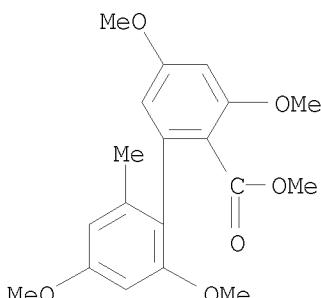
LANGUAGE: English

IT 31185-72-5P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 31185-72-5 CAPLUS

CN [1,1'-Biphenyl]-2-carboxylic acid, 2',3,4',5-tetramethoxy-6'-methyl-, methyl ester (CA INDEX NAME)



L18 ANSWER 59 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB The toxicity of alternariol (I, R = H) (II) and its monomethyl ether (I, R = Me) (III) to the Japanese pear was studied. II and III were isolated from the dried mycelium by Et<sub>2</sub>O extraction or the cultural filtrate by CHCl<sub>3</sub> extraction after *A. kikuchiana* was cultured on potato medium containing 2% sucrose

for 18 days at 25-8°. While II was inactive against young leaves of the Japanese pear, III caused necrotic lesions on young leaves of both resistant and susceptible varieties. IV and V, which are hydrolyzates of III, were toxic to both varieties.

ACCESSION NUMBER: 1969:419620 CAPLUS

DOCUMENT NUMBER: 71:19620

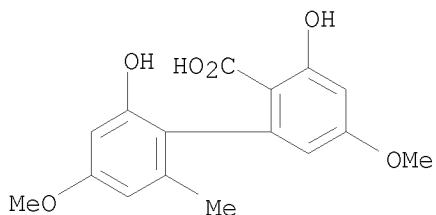
ORIGINAL REFERENCE NO.: 71:3595a, 3598a

TITLE: Resistance of Japanese pears to black spot disease fungus (*Alternaria kikuchiana*). VIII. Alternariol and its monomethyl ether

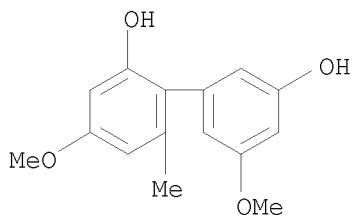
AUTHOR(S): Torikata, Hirotaka; Ohkawa, Masanori; Sassa, Takeshi; Yamada, Tetsuya; Ohkawa, Hironori; Tanaka, Hiroshi; Aoki, Hiroo

10584234

CORPORATE SOURCE: Nagoya Univ., Nagoya, Japan  
SOURCE: Nippon Shokubutsu Byori Gakkaiho (1969),  
35(1), 62-6  
CODEN: NSBGAM; ISSN: 0031-9473  
DOCUMENT TYPE: Journal  
LANGUAGE: Japanese  
IT 25001-21-2 25001-53-0  
RL: PRP (Properties)  
(phytotoxicity of, in Pyrus pyrifolia)  
RN 25001-21-2 CAPLUS  
CN 2-Biphenylcarboxylic acid, 2',3-dihydroxy-4',5-dimethoxy-6'-methyl- (8CI)  
(CA INDEX NAME)



RN 25001-53-0 CAPLUS  
CN 2,3'-Biphenyldiol, 4,5'-dimethoxy-6-methyl- (8CI) (CA INDEX NAME)



L18 ANSWER 60 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AB Only the (R)(+)- $\beta$ -components,  $\beta$ -hydroxyorcein,  
 $\beta$ -aminoorcein, and  $\beta$ -aminoorceimine, were obtained from  
(R)(+)-2,4,6-Me(MeO)(H2N)C6H2C6H2(NH2)(OMe)Me-2,4,6 via  
(R)(+)-2,4,6-Me(HO)2C6H2C6H2(OH)2Me-2,4,6 indicating that the Me groups in  
the orcein residue are trans in the  $\beta$ -component and cis in the  
 $\gamma$ -component. The Cotton effect of the long wavelength absorptions  
in these dyes is relatively weak, since the sym. phenozone chromophore  
is only made unsym. by the chiralic bonding axes in the orcein residue.  
ACCESSION NUMBER: 1968:115673 CAPLUS  
DOCUMENT NUMBER: 68:115673  
ORIGINAL REFERENCE NO.: 68:22323a,22326a  
TITLE: Orcein dyes. XXVI. Synthesis, configuration, and  
spectra optical rotary dispersion-circular dichroism  
of optically active orcein dyes  
AUTHOR(S): Musso, Hans; Steckelberg, Willi  
CORPORATE SOURCE: Ruhr Univ. Bochum, Bochum, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1968), 101(4), 1510-18  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German

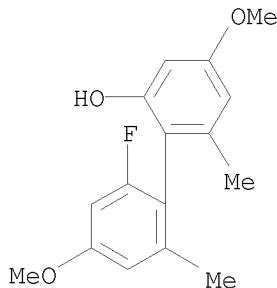
10584234

IT 18011-59-1P 18011-60-4P 18011-61-5P  
21255-79-8P 21255-80-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

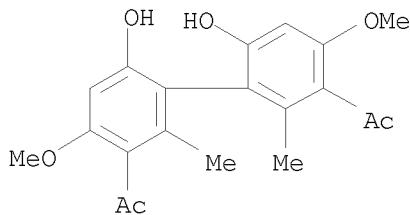
RN 18011-59-1 CAPLUS

CN [o,o'-Bitolyl]-6-ol, 6'-fluoro-4,4'-dimethoxy- (8CI) (CA INDEX NAME)



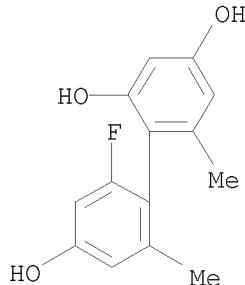
RN 18011-60-4 CAPLUS

CN 3',3'''-Biacetophenone, 4',4'''-dihydroxy-6',6'''-dimethoxy-2',2'''-dimethyl- (8CI) (CA INDEX NAME)



RN 18011-61-5 CAPLUS

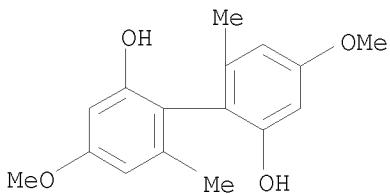
CN [o,o'-Bitolyl]-4,4',6-triol, 6'-fluoro- (8CI) (CA INDEX NAME)



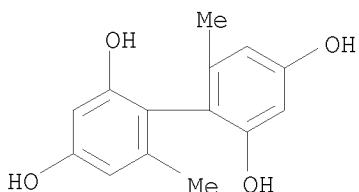
RN 21255-79-8 CAPLUS

CN [1,1'-Biphenyl]-2,2'-diol, 4,4'-dimethoxy-6,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)

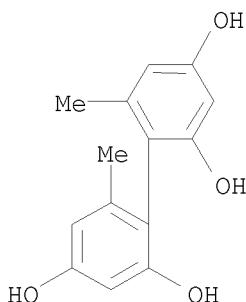
10584234



RN 21255-80-1 CAPLUS  
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl-, (1S)- (9CI) (CA INDEX NAME)



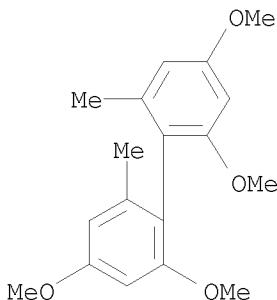
L18 ANSWER 61 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
AB The title sepn. were carried out on potato starch with aqueous pH 7 buffer eluant, or on cellulose 21/2-acetate with benzene-AcOH eluant. OH, MeO, and Me-substituted, and quinonoid derivs. were separated  
ACCESSION NUMBER: 1968:101679 CAPLUS  
DOCUMENT NUMBER: 68:101679  
ORIGINAL REFERENCE NO.: 68:19623a,19626a  
TITLE: Chromatographic separation of antipodes of biphenyl derivatives  
AUTHOR(S): Steckelberg, Willi; Bloch, Michael; Musso, Hans  
CORPORATE SOURCE: Ruhr Univ. Bochum, Bochum, Fed. Rep. Ger.  
SOURCE: Chemische Berichte (1968), 101(4), 1519-21  
CODEN: CHBEAM; ISSN: 0009-2940  
DOCUMENT TYPE: Journal  
LANGUAGE: German  
IT 4946-96-7 20261-64-7  
RL: ANST (Analytical study)  
(chromatog. and polarimetry of)  
RN 4946-96-7 CAPLUS  
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



10584234

RN 20261-64-7 CAPLUS

CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl- (CA INDEX NAME)



L18 ANSWER 62 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB The logarithm of the autoxidn. half-life time increased linearly with the redox potential for alkyl-substituted 1,4- and 1,3-C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub> and for alkyl-substituted 1,2,4-C<sub>6</sub>H<sub>3</sub>(OH)<sub>3</sub>.

ACCESSION NUMBER: 1968:21373 CAPLUS

DOCUMENT NUMBER: 68:21373

ORIGINAL REFERENCE NO.: 68:4071a, 4074a

TITLE: Autoxidation rate and redox potential of hydroquinone, pyrocatechol, and resorcinol derivatives

AUTHOR(S): Musso, Hans; Doepp, Heinrike

CORPORATE SOURCE: Ruhr-Univ., Bochum, Fed. Rep. Ger.

SOURCE: Chemische Berichte (1967), 100(11), 3627-43

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

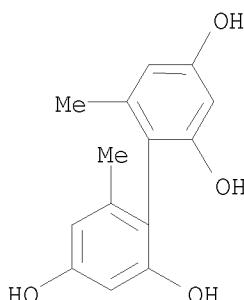
LANGUAGE: German

IT 4946-96-7 4947-12-0

RL: PRP (Properties)  
(autoxidn. and redox potential of)

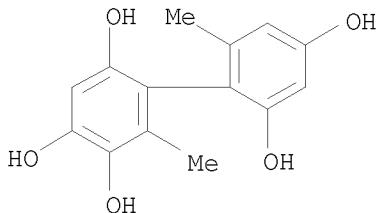
RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



RN 4947-12-0 CAPLUS

CN [o,o'-Bitolyl]-3,4,4',6,6'-pentol (8CI) (CA INDEX NAME)



L18 ANSWER 63 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB cf. CA 60, 13119e. Equimolar (0.01M) solns. of 1,2,3(OH)2C<sub>6</sub>H<sub>3</sub>Pr-iso and 2,5-(HO)2C<sub>6</sub>H<sub>3</sub>Me stirred with 1.0N NaOH in the presence of air rapidly turned green and gave a relatively stable (half-life >24 hrs.) free radical signal in the E.P.R. spectrum. The total extracted phenolic mixture treated with Me<sub>3</sub>SiSiMe<sub>3</sub> and the product analyzed by vapor phase chromatography showed the presence of only one product (I, R = H) (II) and the hydrolyzate of the trimethylsilyl ether (I, R = SiMe<sub>3</sub>) (III) gave an E.P.R. peak identical with that of the main product II. III, C<sub>25</sub>O<sub>4</sub>004Si<sub>3</sub>, λ 313, 303, 295, 259 m $\mu$  (C<sub>6</sub>H<sub>12</sub>) showed N.M.R. signals at τ 8.63 d, 6.47 heptet (J 7.0), 3.53, 3.24 d (J 2.0), 7.39 s, 2.88 s. III heated with Ac<sub>2</sub>O and KOAc gave the corresponding acetate I (R = Ac), C<sub>22</sub>H<sub>22</sub>O<sub>7</sub>, m. 179-80°. The condensation was repeated in a limited supply of air, quenched with acid after 10 sec. and the trimethylsilyl ethers of the products analyzed by vapor phase chromatography to show the presence of 2 major product peaks corresponding to III and the trimethylsilyl ether (IV, R = SiMe<sub>3</sub>) (V) of the biphenyl derivative IV (R = H) (VI). Both V and the corresponding acetate IV (R = Ac) showed N.M.R. signals for 2 pairs of meta proton doublets, conclusively demonstrating the position of the C-C linkage in IV. The isolation of VI as an intermediate limits the structure of the dibenzofuran to I and an alternate (VII), which was excluded since the dibenzofuran gave a neg. Gibbs test. The E.P.R. spectrum of the radical anion of II consists of a quartet with intensity ratios 1:3:3:1 due to a hyperfine coupling to 3 equivalent protons with a coupling constant 1.22 oe. Each of these lines is split into a doublet by a single proton with a coupling constant 0.56 oe., and each of these is again split into 3 lines with intensity ratios 1:2:1 and coupling constant 0.13 oe., indicating coupling to 2 equivalent protons. The hyperfine couplings were assigned with the aid of deuterium analogs. The quartet was assigned to the Me group, the doublet to H-9, and the triplet to H-2 and H-4. No hyperfine coupling from the iso-Pr group was observed. The formation of dibenzofuran through mixed condensation reaction of catechols and resorcinols was found to be quite general though self-condensation was scarcely observed, if at all.

ACCESSION NUMBER: 1967:54754 CAPLUS

DOCUMENT NUMBER: 66:54754

ORIGINAL REFERENCE NO.: 66:10299a,10302a

TITLE: Oxidative condensation of catechols and resorcinols

AUTHOR(S): Waiss, Anthony C., Jr.; Kuhnle, J. A.; Windle, John J.; Wiersema, A. K.

CORPORATE SOURCE: Western Regional Res. Lab., U.S. Dep. of Agr., Albany, CA, USA

SOURCE: Tetrahedron Letters (1966), (50), 6251-5

CODEN: TELEAY; ISSN: 0040-4039

DOCUMENT TYPE: Journal

LANGUAGE: English

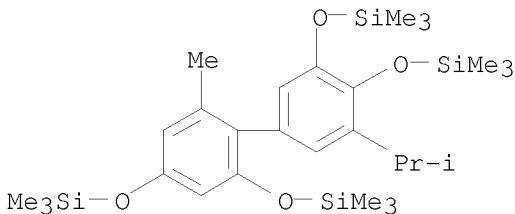
IT 14253-44-2 14253-45-3

10584234

RL: PRP (Properties)  
(nuclear magnetic resonance of)

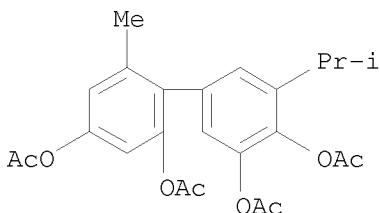
RN 14253-44-2 CAPLUS

CN Biphenyl, 3'-isopropyl-2-methyl-4,4',5',6-tetrakis(trimethylsiloxy)- (8CI)  
(CA INDEX NAME)



RN 14253-45-3 CAPLUS

CN 2,3',4,4'-Biphenyltetrol, 5'-isopropyl-6-methyl-, tetraacetate (8CI) (CA INDEX NAME)

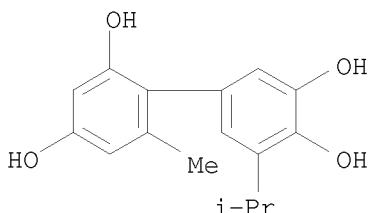


IT 14253-43-1P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of)

RN 14253-43-1 CAPLUS

CN 2,3',4,4'-Biphenyltetrol, 5'-isopropyl-6-methyl- (8CI) (CA INDEX NAME)



L18 ANSWER 64 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB [2,6,4-RMe(MeO)C6H2]2(I) (R = NH2) (II) was separated with tartaric acid (III) into its antipodes. The absolute configuration of optically active II was determined by comparison of the optical rotatory dispersion and circular dichroism with (-)-(S)-[2,6-RMeC6H3]2 (IV) (R = NH2) (IVa) and their derivs. [(+)-(S)-I (R = NHAC) (V) with (+)-(S)-IV (R = NHAc) (VI) and (+)-(S)-I (R = N:CHC6H4OH-2) (VII) with (+)-(S)-IV (R = N:CHC6H4OH-2) (VIII)]. The results showed that both (+)-VII and (+)-VIII and also (-)-II and (-)-IVa have the same configuration. Since the configuration of (-)-IVa has been determined by chemical means as (S) (Mislow, CA 53,10134i),

(--)-II must also have the (S) configuration. (All m.ps. are corrected). A solution of 200 mg. [2,4,6-MeR(MeO)C<sub>6</sub>H<sub>2</sub>]<sub>2</sub> (IX) (R = NH<sub>2</sub>) (X) in 6 cc. H<sub>2</sub>O, 0.2 cc. concentrated HCl, and 0.3 cc. concentrated H<sub>2</sub>SO<sub>4</sub> decolorized with C, diazotized with 103 mg. NaNO<sub>2</sub> in 5 cc. H<sub>2</sub>O at 0°, added dropwise to a hot (100-10°) solution of 8 cc. concentrated H<sub>2</sub>SO<sub>4</sub> and some CuSO<sub>4</sub> in 20 cc. H<sub>2</sub>O, filtered while hot, coded, and let stand for a long time and the precipitate filtered and crystallized from H<sub>2</sub>O gave after drying in vacuo at 100° hydrated IX (R = OH) (XI), m. 164-5°, which sublimed in vacuo at 150° gave 60 mg. anhydrous XI, m. 200-2°. A solution of 2.123 g. (+)-(R)-Iva,  $[\alpha]_D^{20}$  80.0° (c 1, Me<sub>2</sub>CO); .apprx.80% optical purity in 50 cc. 2N H<sub>2</sub>SO<sub>4</sub> and 6 g. concentrated H<sub>2</sub>SO<sub>4</sub> diazotized with 1.4 g. NaNO<sub>2</sub> at 0°, added dropwise to 150 cc. hot (110°) 50% H<sub>2</sub>SO<sub>4</sub>, coded, and extracted with Et<sub>2</sub>O, the Et<sub>2</sub>O solution extracted with 2N NaOH, the alkaline solution acidified, the reddish precipitate (1.05 g.) filtered and dissolved in alkaline solution, the solution treated at 80° with Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> (to remove azo dyes present), acidified, and extracted with Et<sub>2</sub>O, the extract evaporated, and the residue recrystd. twice from C<sub>6</sub>H<sub>6</sub> gave 542 mg. (+)-(R)-IV (R = OH) (XII), m. 157-8°,  $[\alpha]_D^{20}$  82.0° (c 1.0, Me<sub>2</sub>CO), 77.8° (c 0.6, EtOH). X (150 mg.) in 4 cc. H<sub>2</sub>O and 0.4 cc. concentrated HCl treated dropwise at 0° with 77 mg. NaNO<sub>2</sub> in 0.5 cc. H<sub>2</sub>O, the solution poured into 10 cc. ice cold 30% H<sub>3</sub>PO<sub>2</sub>, refrigerated 18 hrs., and let stand 24 hrs. at room temperature, the precipitate filtered and dissolved in C<sub>6</sub>H<sub>6</sub>-petroleum ether, the solution washed with 10% aqueous NaOH and H<sub>2</sub>O and evaporated, and the residue chromatographed on neutral silica gel with C<sub>6</sub>H<sub>6</sub> gave 53 mg. (±)-XII, m. 120-2° (EtOH-dilute AcOH, sublimation in vacuo at 80°), which (107 mg.) methylated with 200 mg. Me<sub>2</sub>SO<sub>4</sub> and 200 mg. K<sub>2</sub>CO<sub>3</sub> in 20 cc. Me<sub>2</sub>CO gave 93 mg. (±)-IV (R = OMe) (XIII), m. 126° (EtOH-H<sub>2</sub>O). Similar methylation of 107 mg. (+)-(R)-XII gave 60 mg. (+)-(R)-XIII, m. 85-7°,  $[\alpha]_{25}^D$  52.7° (c 0.64, EtOH), at least 80% optical purity. Efforts to obtain the antipodes of (±)-X were unsuccessful, apparently because the salts of the antipodes differed too little in solubility and in crystal structure. To a stirred solution of 21.8 g. 3,5-O<sub>2</sub>N(MeO)-C<sub>6</sub>H<sub>3</sub>Me (XIIa) in AcOH was added 3.3 g. NaOAc at room temperature (light excluded), followed dropwise 8 hrs. by 62 g. Br in 145 cc. AcOH while simultaneously adding portionwise 540 mg. Fe powder, after 1 hr. the solution poured into 11. ice H<sub>2</sub>O and let stand several hrs., and the precipitate filtered, washed with H<sub>2</sub>O, dried, and recrystd. from 200 cc. cyclohexane with C to give 24.7 g. 2,3,5-Br(O<sub>2</sub>N)(MeO)C<sub>6</sub>H<sub>2</sub>Me (XIV), m. 78-82°, sufficiently pure for further reaction; anal. XIV m. 80-2° (MeOH, sublimation in vacuo at 60°), N.M.R. (CDCl<sub>3</sub>) showing doublet at 7.05 (1H) and 7.4 ppm. (1H) [ $J$  = 3 cycles/sec. (c.p.s.)] (2 aromatic protons in meta position to each other); the mother liquors concentrated and the residue investigated by gas chromatography (4-m. steel column with SE-52; 30 cc. N/min., 230°; injection block 330°) showed the presence of XIIa, XIV, 4-Br analog (XIVa) of XIV, 2,4,3,5-Br<sub>2</sub>(O<sub>2</sub>N)MeO)C<sub>6</sub>H<sub>3</sub>Me (XV), and an unidentified compound (XVI) (retention times = 5.0, 9.5, 10.0, 13.5, and 19 min.); a very weak peak (<0.1%) at 11 min. could be assigned to the 6-Br analog of XIV. This residue chromatographed on silica gel with cyclohexane-C<sub>6</sub>H<sub>6</sub> (initially 9:1, finally 1:1; 300 40-cc. fractions collected gave first XV followed by XIIa with XIV and XIVa, while XVI appeared only after elution with C<sub>6</sub>H<sub>6</sub>. The compds. were all obtained anal. pure after recrystn. of the residues of the main fractions from cyclohexane (large losses); the proportion of the compds. in the mother liquor was 8:60:10:6:1 XIIa-XIV-XIVa-XV-XVI. XIVa m. 105-6°. XV (3% yield) m. 155°. XVI, probably a dinitromethoxytoluene, m. 114-15°. In a larger experiment, chromatography of the mother liquors of XV gave 0.3% second dibromo

compound, probably 2,6-Br<sub>2</sub> analog of XV, m. 112-14°. A mixture of 10 g. XIV and 30 g. activated (with AcOH) Cu powder heated 2 hrs. at 200° and 3 hrs. at 230° (air excluded) and extracted with C<sub>6</sub>H<sub>6</sub> and the extract chromatographed on silica gel with C<sub>6</sub>H<sub>6</sub> gave from the first zone 4.8 g. I (R = NO<sub>2</sub>) (XVII), m. 115°. A mixture of 2.5 g. XIV and 3.5 g. Cu powder in 25 cc. PhNO<sub>2</sub> heated 6 hrs. at 190° and PhNO<sub>2</sub> steam distilled gave after chromatography (as above) 1 g. XVII, m. 113-15°. XVII (400 mg.) in 40 cc. warm MeOH hydrogenated over Raney Ni until the calculated amount H was absorbed gave 320 mg. (±)-II, m. 117-18°. A boiling solution of 8.2 g. (±)-II and 9.1 g. (-)-III in 40 cc. EtOH cooled slowly and let stand 24 hrs. and the precipitate repeatedly recrystd. from the smallest possible amount of 0.5M EtOH-(--)-III gave after 4 crystns. .apprx.2 g. salt, [α]25365 .apprx.-21° (c 4, EtOH), optical purity .apprx.25%, and after 6 crystns. .apprx.0.6 g. salt, [α]25365 .apprx.-37°, optical purity .apprx.45%. This fraction dissolved in 2N HCl and the solution treated with dilute aqueous NH<sub>3</sub> with

stirring and ice cooling gave 3-4% (--)-(S)-II, m. 134-6°, [α]25365 -167° (c 0.5, EtOH). Similar treatment of the free amine from all mother liquors with (+)-III gave (+)-(R)-II, m. 134-6°, [α]25365 167° (c 0.5, EtOH). (±)-II (100 mg.) heated briefly with 2 cc. Ac<sub>2</sub>O, after several hrs. excess Ac<sub>2</sub>O decomposed with H<sub>2</sub>O, the solution evaporated in vacuo, and the residue dried (over

KOH and chromatographed on silica gel with 4:1 C<sub>6</sub>H<sub>6</sub>-Et<sub>2</sub>O gave 122 mg. (±)-V, m. 63-8° (sublimation in vacuo at 120-30°). From (--)-(S)-II was similarly prepared 87% (+)-(S)-V, m. 70-5°, [α]25D 105° (c 0.7, EtOH). (±)-II (52 mg.) and 750 mg. 2-HOC<sub>6</sub>H<sub>4</sub>CHO (XVIII) heated 30 min. at 180-90°, the product taken up in EtOH, and the solution diluted with petroleum ether gave 65 mg. (±)-VII, m. 169-71° (C<sub>6</sub>H<sub>6</sub>cyclohexane). A solution of 60 mg. (--)-(S)-II and 66 mg. XVIII in 3 cc. EtOH let stand 24 hrs. at room temperature deposited 89 mg. (+)-(S)-VII, m. 189-91°, [α]25D 500° (c 0.12, dioxane). (±)-II (170 mg.) in 4 cc. H<sub>2</sub>O and 0.4 cc. concentrated HCl treated at 0° with 86 mg. NaNO<sub>2</sub> in 0.5 cc. H<sub>2</sub>O, the solution poured into 10 cc. ice cold 30% H<sub>3</sub>PO<sub>2</sub>, kept 48 hrs. at 0° and 24 hrs. at room temperature, and extracted with EtOAc, the extract dried and evaporated, the residue

chromatographed on silica gel with 1:1 C<sub>6</sub>H<sub>6</sub>-EtOAc, and the oily product from the first pale red zone distilled in vacuo at 80° gave 62 mg. (±)-IV (R = OMe) (XIX), m. 55°, identical (mixed m.p. and ir spectrum) with an authentic specimen. (±)-IVa (149 mg.) and 2.3 g. XVIII kept 20 min. at 185-90° and the mixture cooled and diluted with 8 cc. EtOH gave 240 mg. (±)-VIII, m. 234-6° (C<sub>6</sub>H<sub>6</sub>-EtOAc). Optically pure (--)-(S)-XIX (44 mg.) and 134 mg. XVIII in 5 cc. EtOH let stand 20 hrs. at room temperature gave 58 mg. (+)-(S)-VIII, m. 166°, [α]25D 627° (c 0.1, EtOH). The optical rotatory dispersion, circular dichroism, and uv spectra of (--)-(S)-IVa, (--)-(S)-II, (+)-(S)-V, (+)-(S)-VI, (+)-(S)-VII, and (+)-(S)-VIII were recorded.

ACCESSION NUMBER: 1966:447064 CAPLUS

DOCUMENT NUMBER: 65:47064

ORIGINAL REFERENCE NO.: 65:8725a-h, 8726a-e

TITLE: (--)-(S)-2,2'-Diamino-4,4'-dimethoxy-6,6'-dimethylbiphenyl- configuration determination of the optically active 2,2'-diamino-biphenyls with rotatory dispersion and circular dichroism

AUTHOR(S): Musso, Hans; Steckelberg, Willi

CORPORATE SOURCE: Univ. Marburg, Germany

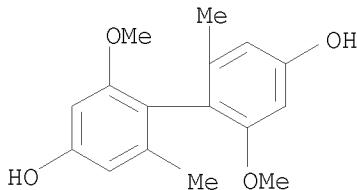
SOURCE: Justus Liebigs Annalen der Chemie (1966), 693, 187-96

10584234

CODEN: JLACBF; ISSN: 0075-4617

DOCUMENT TYPE: Journal  
LANGUAGE: German

IT 94429-21-7P, 4,4'-Bi-m-cresol, 5,5'-dimethoxy-  
RL: PREP (Preparation)  
(preparation of)  
RN 94429-21-7 CAPLUS  
CN 4,4'-Bi-m-Cresol, 5,5'-dimethoxy- (7CI) (CA INDEX NAME)



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AB cf. CA 65, 643b. Assignment of configurations was made for compds. synthesized earlier (loc. cit.). The assignments were usually made on the basis of vinyl C-H ir bands. For compds. of the formula R1CH: CHSR2 (R1 = substituted Ph, R2 = 2-imidazolyl or 2-benzimidazolyl) assignments were made on the basis of vinyl spin-spin coupling consts. Configuration was assigned for the following R1CH:CHSOnR2 (R1, R2, n, and configurations given): p-C1C6H4, p-C1C6H4, 0(2), cis (trans); p-C1C6H4, 2,4,5-C13C6H2, 0(2) cis (trans); p-C1C6H4, 2-thienyl, 0(2), cis (trans); 2,4,5-C13C6H2, 2-thienyl, 0(2), cis (cis); 2-thienyl, p-C1C6H4, 0(2), trans (trans); 2-thienyl, 2,4,5-C13C6H2, 0, cis; 2-thienyl, 2,4,5-C13C6H2, 2, trans; p-C1C6H4, 2-thiazolyl, 0(2), cis (cis); 2,4,5-C13C6H2, 2-thiazolyl, 0, cis; p-C1C6H4, 2-imidazolyl, 0, cis; 2,4,5-C13C6H2, 2-imidazolyl, 0, cis; p-C1C6H4, 2-benzimidazolyl, 0, cis; 2,4,5-C13C6H2, 2-benzimidazolyl, 0, cis.

ACCESSION NUMBER: 1966:447063 CAPLUS

DOCUMENT NUMBER: 65:47063

ORIGINAL REFERENCE NO.: 65:8724h, 8725a

TITLE: Synthesis and physiological properties of some heterocyclic-aromatic sulfides and sulfones. VII. Determination of the stereochemical configurations by ir and N.M.R. spectrometry

AUTHOR(S): Trompen, M. P.; Kruk, C.; van der Haak, P. J.; Huisman, H. O.

CORPORATE SOURCE: Univ. Amsterdam

SOURCE: Recueil des Travaux Chimiques des Pays-Bas (1966), 85(2), 185-97

CODEN: RTCPA3; ISSN: 0165-0513

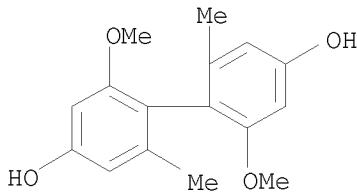
DOCUMENT TYPE: Journal

LANGUAGE: English

IT 94429-21-7  
(Derived from data in the 7th Collective Formula Index (1962-1966))

RN 94429-21-7 CAPLUS

CN 4,4'-Bi-m-Cresol, 5,5'-dimethoxy- (7CI) (CA INDEX NAME)



L18 ANSWER 66 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB cf. preceding abstract The mechanism of the formation of orcein dyes was elucidated and a reaction scheme presented. Hydroxyhydroquinones react with NH<sub>3</sub> via 4-aminoresorcinols to give tetrahydroxydiphenylamines which are readily oxidized by air to indophenols. The indophenols add in alkaline solution resorcinol derivs. and eliminate H<sub>2</sub>O with the formation of 2-hydroxyphenoaz-2-one derivs.  $\beta$ - and  $\gamma$ -Hydroxyorceins and hydroxyresorceins substituted on the chromophore and on the ring-substituents by Me groups were prepared according to this scheme. 1,2,4-C<sub>6</sub>H<sub>3</sub>(OH)<sub>3</sub> (I) (100 mg.) in 20 cc. 1:1 NH<sub>4</sub>OH-H<sub>2</sub>O heated 0.5 hr. at 50° and evaporated in vacuo, and the residue boiled 3 times with Et<sub>2</sub>O yielded from the extract 86.2 mg. light-gray, hygroscopic, air-sensitive product which was characterized as [2,4-(AcO)C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>NH (II). A similar run with 2,3,5-(HO)C<sub>6</sub>H<sub>2</sub>Me yielded 2,4,6-Me(HO)C<sub>6</sub>H<sub>2</sub>NH<sub>2</sub> (III), isolated in 50% yield as [2,4,6-Me(AcO)C<sub>6</sub>H<sub>2</sub>]<sub>2</sub>NH, m. 100°. 2,4-(HO)C<sub>6</sub>H<sub>3</sub>NH<sub>2</sub>.HCl (100 mg.) in a little H<sub>2</sub>O shaken in the absence of O with about 1 g. Amberlite IR-4B (base) during 0.5 hr. yielded 63% viscous, light brown lacquer which was converted to II, m. 162°. [2,4-(HO)C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>NH (30 mg.), some AcONa, and 2 cc. Ac<sub>2</sub>O refluxed 0.5 hr., and the crude product chromatographed on Al<sub>2</sub>O<sub>3</sub> yielded 12.2 mg. N-Ac derivative of II, m. 162°. III.HCl (6.0 g.) in 500 cc. H<sub>2</sub>O, 30 cc. N NaOH, and 100 cc. BuOH treated dropwise with stirring during 1.5 hrs. under N with 16.0 g. K<sub>3</sub>Fe(CN)<sub>6</sub> in 500 cc. H<sub>2</sub>O and 20 cc. N NaOH and acidified, and 500 mg. of the residue (1.8 g.) from the BuOH phase chromatographed on silica gel yielded 200 mg. IV (R = Me, R' = OH, R'' = O). 2,3,4,6-Me(HO)C<sub>6</sub>H<sub>2</sub>(OH)C<sub>6</sub>H<sub>2</sub>-2,4,6 (IVa) (100 mg.) treated under N with 10 cc. 1:1 NH<sub>4</sub>OH-H<sub>2</sub>O, purged 1 hr. with N, heated 6 hrs. at 100°, and evaporated, and the residue chromatographed on silica gel yielded 18 mg.  $\beta$ -V (R' = OH, R'' = O) (VI) [acetate, m. 138-40° (decomposition)] and 17 mg.  $\gamma$ -V [acetate, m. 145-7° (decomposition)]. I (200 mg.) and 8.0 g. orcinol in 100 cc. H<sub>2</sub>O and 30 cc. 2N NH<sub>4</sub>OH kept 36 hrs. in air, and the product mixture chromatographed twice on cellulose powder yielded 90 mg. dark red VII, decompose at 350° without melting. Crude VII (200 mg.) acetylated and chromatographed gave 70 mg. orange pentaacetate of VII, m. 133-6°. III.HCl (400 mg.) and 8.0 g. m-C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub> in 170 cc. H<sub>2</sub>O and 10 cc. 2N NH<sub>4</sub>OH kept 3 days in air gave similarly 98 mg. dark red VIII, decompose at 350° without melting. VIII (30 mg.), some AcONa, and 2 cc. Ac<sub>2</sub>O heated 0.5 hr. on the water bath and chromatographed on silica gel gave 25 mg. orange pentaacetate of VIII, m. 129-32° (cyclohexane). III (109 mg.) in 5 cc. 1:1 C<sub>5</sub>H<sub>5</sub>N-Ac<sub>2</sub>O kept 24 hrs. at room temperature yielded 138 mg. 2,3,5-AcNH(AcO)C<sub>6</sub>H<sub>2</sub>Me, m. 159° (CHCl<sub>3</sub>-C<sub>6</sub>H<sub>6</sub>), which was also obtained in 55% yield from III.HCl. III (128 mg.), 150 mg. AcONa, and 10 cc. Ac<sub>2</sub>O refluxed 3 hrs. and chromatographed on silica gel gave 198 mg. 2,3,5-Ac<sub>2</sub>N(AcO)C<sub>6</sub>H<sub>2</sub>Me, m. 100.5° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). 3,5,- 2,4-(HO)<sub>2</sub>(O<sub>2</sub>N)C<sub>6</sub>H<sub>2</sub>Me (214.1 mg.) in 3 cc. MeOH heated 1.5 hrs. with 1.489 g. SnCl<sub>2</sub>.2H<sub>2</sub>O in 3 cc. concentrated HCl and treated with H<sub>2</sub>S yielded 147.4 mg. 2,4,3,5-(H<sub>2</sub>N)<sub>2</sub>(HO)C<sub>6</sub>H<sub>2</sub>Me.2HCl (IX.2HCl). IX.2HCl (50 mg.) treated 24 hrs.

at 20° with 4 cc. C<sub>5</sub>H<sub>5</sub>N-Ac<sub>2</sub>O gave 28.6 mg. 2,4,3,5-(AcNH)<sub>2</sub>(AcO)C<sub>6</sub>HMe, m. 165-71° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). IX.2HCl (100 mg.), 4 cc. Ac<sub>2</sub>O, and 150 mg. AcONa refluxed 4 hrs. and poured into 30 cc. H<sub>2</sub>O gave 162 mg. 2,4,3,5-(Ac<sub>2</sub>N<sub>2</sub>)(AcO)C<sub>6</sub>HMe (IXa), m. 137-8° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). PhNH<sub>2</sub> (3.726 g.) in 40 cc. 6N HCl diazotized with 3.0 g. NaNO<sub>2</sub> in 15 cc. H<sub>2</sub>O, diluted with iced H<sub>2</sub>O to 150°, and added dropwise during 25 min. to 5.686 g. 3,5-(HO)C<sub>6</sub>H<sub>3</sub>Me.H<sub>2</sub>O and 30 g. AcONa in 3 l. H<sub>2</sub>O, and the product chromatographed on silica gel yielded 7.473 g. orange 2,3,5-PhN:N(HO)C<sub>6</sub>H<sub>2</sub>Me (X), m. 195-6° (dioxane-cyclohexane), and 632 mg. red 2,4,3,5-(PhN:N)C<sub>6</sub>H<sub>2</sub>Me (XI), m. 234-5° (decomposition) (C<sub>6</sub>H<sub>6</sub>). X (247 mg.) treated at 60° with 600 mg. SnCl<sub>2</sub> in 3 cc. concentrated HCl gave 185 mg. III.HCl which with Ac<sub>2</sub>O-AcONa yielded

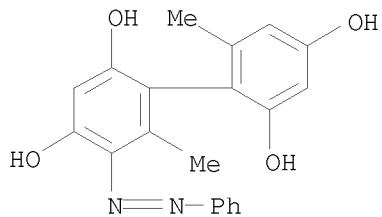
214

mg. 2,3,5-Ac<sub>2</sub>N(AcO)C<sub>6</sub>H<sub>2</sub>Me, m. 98-9° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XI (333.6 mg.) gave similarly 188.7 mg. IX.2HCl which was converted to 92.5% IXa, m. 137-8°. PhNH<sub>2</sub> (93.2 mg.) in 2 cc. 6N HCl diazotized with 70 mg. NaNO<sub>2</sub> in 1 cc. H<sub>2</sub>O, diluted with 40 cc. iced H<sub>2</sub>O and added dropwise during 20 min. with stirring at 0° to 246.3 mg. [2,4,6-Me(HO)C<sub>6</sub>H<sub>2</sub>]<sub>2</sub> (XII), and the crude product (275.3 mg.) chromatographed on silica gel yielded 7 fractions of 34.6, 2.3, 16.8, 1, 81.3, 7.3, and 110.0 mg., resp. Fraction 7 gave the red 5-PhN:N derivative (XIII) of XII, m. 230-1° (decomposition); fraction 5 yielded the red 5,5'-bis(phenyazo) derivative of XII, charring at 285-90° (C<sub>5</sub>H<sub>5</sub>N-AcOEt); and fraction 1 gave the dark red 3,5,5'-tris(phenylazo) derivative of XII, blackens above 200°; fraction 6 gave orange rhombs which were not investigated further. 2-Hydroxy-6-methyl-5-(2-methyl-4,6-dihydroxyphenyl)-p-benzoquinone (XIV) (0.2-0.25 g.) in 50 cc. C<sub>6</sub>H<sub>6</sub> shaken with 1-2 g. Zn dust and 5 cc. AcOH until colorless gave light brown IVa, m. 217-20° (sublimed at 150° in vacuo); 1.66 g. XIV gave in this manner 1.05 g. IVa. XIII (50.7 mg.), 5 cc. MeOH, 5 cc. H<sub>2</sub>O, and 4 cc. concentrated HCl heated 3 hrs. on the water bath with 80 mg. ZnCl<sub>2</sub>, and the product refluxed 0.5 hr. with AcONa and 2 cc. Ac<sub>2</sub>O yielded 40.3 mg. 2,3,4,6-Me(Ac<sub>2</sub>N)(AcO)C<sub>6</sub>H<sub>2</sub>(OAc)C<sub>2</sub>Me-2,4,6 (XV), m. 133-4° (cyclohexane). IVa (100 mg.) in 10 cc. 1:1 NH<sub>4</sub>OH-H<sub>2</sub>O heated 7 hrs. under N on the water bath, and the crude product acetylated gave 113.7 mg. XV. The spectra of 7-hydroxy-2-phenoxyazone (XVI), the 4,5-dimethyl derivative of XVI, and 3,5-(HO)C<sub>6</sub>H<sub>3</sub>Me between 300 and 700 m $\mu$  are recorded.

ACCESSION NUMBER: 1966:52506 CAPLUS  
 DOCUMENT NUMBER: 64:52506  
 ORIGINAL REFERENCE NO.: 64:9846d-h, 9847a-h  
 TITLE: Orcein dyes. XXV. Mechanism of formation and synthesis of orcein dyes  
 AUTHOR(S): Musso, Hans; Zahorszky, Uwe Ingomar; Beecken, Hermann; Gottschalk, Ellen Marie; Kraemer, Horst  
 CORPORATE SOURCE: Univ. Goettingen, Germany  
 SOURCE: Chemische Berichte (1965), 98(12), 3964-80  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 IT 4947-10-8P, 2,2',4,4'-Biphenyltetro, 6,6'-dimethyl-5-(phenylazo)-4947-11-9P, 2,2',4,4'-Biphenyltetro, 6,6'-dimethyl-5,5'-bis(phenylazo)-4947-12-0P, 2,2',4,4',5-Biphenylpentol, 6,6'-dimethyl-4947-13-1P, o-Diacetotoluidide, 3'-(4,6-dihydroxy-o-tolyl)-4'',6''-dihydroxy-, tetraacetate 5012-28-2P, 2,2',4,4'-Biphenyltetro, 6,6'-dimethyl-3,5,5'-tris(phenylazo)-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 4947-10-8 CAPLUS

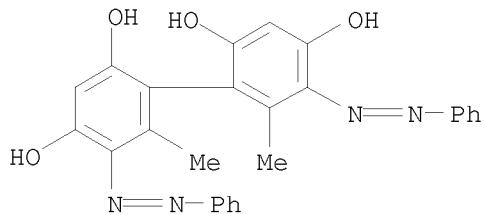
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CN 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-5-(phenylazo)- (7CI, 8CI) (CA INDEX NAME)



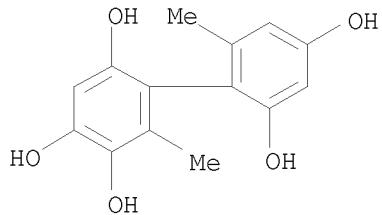
RN 4947-11-9 CAPLUS

CN 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-5'-bis(phenylazo)- (7CI, 8CI) (CA INDEX NAME)



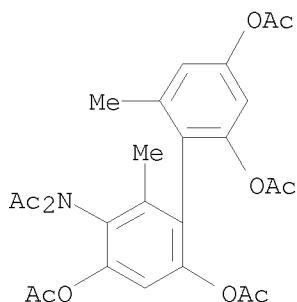
RN 4947-12-0 CAPLUS

CN [o,o'-Bitolyl]-3,4,4',6,6'-pentol (8CI) (CA INDEX NAME)

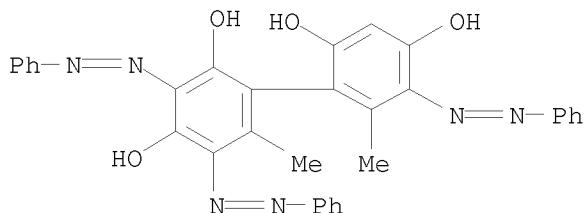


RN 4947-13-1 CAPLUS

CN o-Diacetotoluidide, 3''-(4,6-dihydroxy-o-tolyl)-4'',6''-dihydroxy-, tetraacetate (ester) (8CI) (CA INDEX NAME)



RN 5012-28-2 CAPLUS  
 CN 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-3,5,5'-tris(phenylazo)- (7CI, 8CI)  
 (CA INDEX NAME)



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GI For diagram(s), see printed CA Issue.

AB cf. CA 64, 8351d. The mechanism by which  $1,3,5\text{-MeC}_6\text{H}_3(\text{OH})_2$  (I) is oxidized in alkaline solution by atmospheric O<sub>2</sub> to the dimeric quinones II and III was

investigated by isolating intermediates chromatographically, by kinetic measurements, and by preparative studies with sterically hindered model compds. I.H<sub>2</sub>O (5.1 g.) and 3.6 g. KOH in 85 cc. H<sub>2</sub>O, treated with stirring under N dropwise during 3.5 hrs. with 29.0 g. K<sub>3</sub>Fe(CN)<sub>6</sub> in 80 cc. H<sub>2</sub>O and acidified with 2N H<sub>2</sub>SO<sub>4</sub>, and the precipitate (2.8 g.) repptd. from EtOH with 2N H<sub>2</sub>SO<sub>4</sub>, gave the polymeric IV; the acidified filtrate extracted with BuOH, and the extract chromatographed on paper showed the presence of I, [2,4,6-Me(OH)2C<sub>6</sub>H<sub>2</sub>]<sub>2</sub> (V), IV, and 4 phenolic compds. IV (500 mg.), 500 mg. Na, and 10 cc. dry C<sub>5</sub>H<sub>5</sub>N refluxed 6 hrs. under N, treated successively with 10 cc. 1:1 aqueous C<sub>5</sub>H<sub>5</sub>N and 10 cc. H<sub>2</sub>O, acidified with 50% H<sub>2</sub>SO<sub>4</sub>, and extracted with BuOH gave 57 mg. product mixture; the H<sub>2</sub>O-soluble portion of the mixture (40 mg.) sublimed at 120-80° in vacuo gave 8 mg. mixture of I and V. I. (1.0 g.) and 2.0 g. BzPh in 200 cc. C<sub>6</sub>H<sub>6</sub> under N irradiated with an immersed 125-w. uv lamp during 5 hrs. gave 830 mg. colorless solid and 1.0 g. BzPh; 2.0 g. colorless product chromatographed on cellulose powder, and the main product sublimed at 150-70° in vacuo yielded 40 mg. V, m. 232° (CHCl<sub>3</sub>). VI (R = Me) (198 mg.) and 2 g. dry C<sub>5</sub>H<sub>5</sub>N.HCl heated 2.5 hrs. at 180° under N gave 160 mg. (crude) hygroscopic VI (R = H) (VII), m. 80-1°. Crude VII (46 mg.), 1 cc. Ac<sub>2</sub>O, and 1 cc. C<sub>5</sub>H<sub>5</sub>N kept 3 hrs. at room temperature yielded 34.7 mg. 2,4,6-Me(AcO)2C<sub>6</sub>H<sub>2</sub>OC<sub>6</sub>H<sub>3</sub>(OAc)Me-3,5 (VIII), m. 81° (cyclohexane). VII (160 mg.), 80 cc. H<sub>2</sub>O, and 20 cc. 0.2M K<sub>2</sub>HPO<sub>4</sub> treated at 0° with stirring with 540 mg. NO(SO<sub>3</sub>K)<sub>2</sub> in 40 cc. 0.2M K<sub>2</sub>HPO<sub>4</sub>, acidified after 1 hr. with 2N H<sub>2</sub>SO<sub>4</sub>, and extracted with BuOH, and the residue from the extract (160 mg.) chromatographed on cellulose powder yielded some II and 20 mg. orange-brown IX, m. 137-9° (decomposition) (C<sub>6</sub>H<sub>6</sub>). IX (100 mg.), 2 g. Zn dust, and 0.5 g. AcONa in 10 cc. Ac<sub>2</sub>O refluxed until colorless gave 89 mg. 5-AcO derivative of VIII. The comparative autoxidn. of I and V demonstrated that V was oxidized nearly 10 times as fast as I. If the autoxidn. of I and V is performed in the presence of K<sub>3</sub>Fe(CN)<sub>6</sub>, in order to produce free orcinol radicals which are consumed immediately, the presence of V can be demonstrated chromatographically in the mixture, proving that V is not an intermediate in the oxidation of I to II and III. The autoxidn. of V proceeded without the formation of H<sub>2</sub>O<sub>2</sub>.

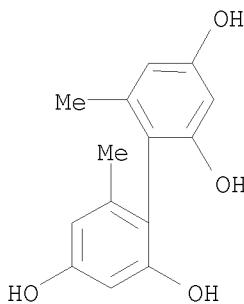
ACCESSION NUMBER: 1966:52505 CAPLUS

DOCUMENT NUMBER: 64:52505

ORIGINAL REFERENCE NO.: 64:9845f-h, 9846a-d

TITLE: Orcein dyes. XXIV. Mechanism of autoxidation of

AUTHOR(S): resorcinol derivatives  
 Musso, Hans; Gazycki, Ulrich v.; Kraemer, Horst;  
 Doepp, Heinrike  
 CORPORATE SOURCE: Univ. Goettingen, Germany  
 SOURCE: Chemische Berichte (1965), 98(12), 3952-63  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: German  
 IT 4946-96-7P, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 4946-96-7 CAPLUS  
 CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



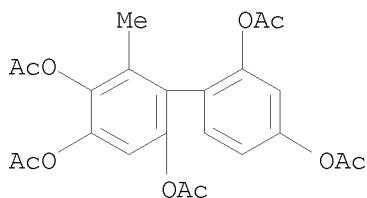
L18 ANSWER 68 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

GI For diagram(s), see printed CA Issue.

AB Resorcinol derivs. add in alkaline solution to hydroxyquinones to yield the corresponding dihydroxyarylhydroquinones. PhOH reacts in acidic and alkaline solution with p-benzoquinone (I) to give o-(II) and p-hydroxyphenylbenzoquinone (III); in neutral solution phenoxyquinones are also formed. The condensation of hydroxy-p-xyloquinone (IV) with BF<sub>3</sub> led to a dibenzofuranquinone, present in nonpolar solvents as diphenoquinone. m-C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub> (1 g.) in 25 cc. 0.2M phosphate buffer (pH 12) and 4 cc. 2N NaOH treated dropwise with stirring in air with 100 mg. 1,2,4-C<sub>6</sub>H<sub>3</sub>(OH)<sub>3</sub> in 10 cc. H<sub>2</sub>O and acidified after 20 min. with dilute H<sub>2</sub>SO<sub>4</sub>, and the crude product chromatographed on silica gel yielded 38 mg. V (R = R<sub>1</sub> = R<sub>2</sub> = R<sub>3</sub> = H) (VI), dark brown needles, blacken up to 320° without melting. Similarly were prepared the following V (R, R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, % yield, and m.p. given): Me, H, Me, H, 92.5, 182-7° (decomposition); Me, Me, Me, Me, 90, 224-5°; tert-Bu, H, tert-Bu, H, 39.5, 225-7° (orange needles) (AcOEt/cyclohexane); H, H, Me, H, 28, 190-200° (decomposition); Me, H, H, H, 11, 180-200° (decomposition). VI (125 mg.) in 5 cc. Ac<sub>2</sub>O heated 0.5 hr. on the water bath with NaOAc and Zn dust, and the product chromatographed on silica gel yielded 207 mg. 2,2',4,4',5-pentaacetoxybiphenyl (VII), m. 123-4° (cyclohexane-C<sub>6</sub>H<sub>6</sub>). Similarly were prepared the following derivs. of VII (substituent, % yield, and m.p. given): 6'-Me, 68, 136-9°; 6-Me, 84, 133-4°. 6-Hydroxytoluhydroquinone (141 mg.) in 25 cc. 0.2M phosphate buffer (pH 12) stirred 1 hr. in air and acidified with dilute H<sub>2</sub>SO<sub>4</sub>, and the product chromatographed on silica gel yielded 91 mg. 4,4'-dihydroxy-2,2'-ditolyldiquinone, yellow needles, m. 207°. Similarly was prepared 4,4'-dihydroxy-3,3',6,6'-tetramethylbiphenyldiquinone, 68%, m. 208-10°. PhOH (5.64 g.) and 1.58 g. KOH in 20 cc. H<sub>2</sub>O treated with stirring with 0.648 g. I in 20 cc. H<sub>2</sub>O and acidified after 4 min. with dilute H<sub>2</sub>SO<sub>4</sub>, and the product chromatographed on silica gel yielded 5 mg.

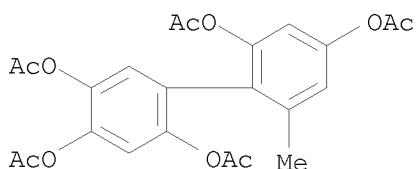
5-PhO derivative (VIII) of 2-(p-hydroxyphenoxy)-1,4-benzoquinone (IX), light yellow needles, m. 224-6°, and 43 mg. III, m. 177° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). PhOH (5.64 g.) in 35 cc. 20% H<sub>2</sub>SO<sub>4</sub> and 7 cc. MeOH treated 0.5 hr. at 40° with 0.65 g. I yielded 103 mg. II, m. 192-3°, and 10 mg. III. I (3g.) and 18 g. PhOH in 850 cc. H<sub>2</sub>O and 150 cc. MeOH kept 20 days, and the crude product chromatographed on silica gel yielded 170 mg. yellow 2,5-diphenoxyl-1,4-benzoquinone, m. 236-7° (cyclohexane), 95 mg. X, 220 mg. IX, 100 mg. VIII, yellow needles, m. 224-6° (AcOEt-cyclohexane), and 1.5 g. p-C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub>. VIII (20 mg.) with 5 cc. Ac<sub>2</sub>O and 1 cc. C<sub>5</sub>H<sub>5</sub>N yielded 17 mg. acetate of VIII, yellow-green needles, m. 192-4° (C<sub>6</sub>H<sub>6</sub>). VIII (27 mg.) in 10 cc. Ac<sub>2</sub>O treated with 2 g. Zn dust yielded 22 mg. 2-(p-acetoxyphenoxy)-5-phenoxyhydroquinone diacetate, m. 102° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). I (2 g.) in 200 cc. H<sub>2</sub>O and 25 cc. MeOH kept 9 days and acidified with dilute H<sub>2</sub>SO<sub>4</sub> yielded 25 mg. IX, yellow needles, m. 145-6° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). IX (216 mg.) and 2 g. PhOH in 150 cc. H<sub>2</sub>O and 25 cc. MeOH kept 13 days yielded 25 mg. VIII, yellow needles, m. 224-6° (AcOEt-cyclohexane). II (100 mg.) in 30 cc. dry Et<sub>2</sub>O treated 2 hrs. with 0.5 cc. Et<sub>2</sub>O.BF<sub>3</sub> yielded 80 mg. 1,4,5,8-tetramethyl-3,6-dihydroxydibenzofuran-2,7-quinone (XI), black-blue needles, decompose slowly above 300° without melting up to 350° (AcOEt). II (150 mg.) in 15 cc. AcOH treated 4 hrs. at room temperature with 0.5 cc. concentrated H<sub>2</sub>SO<sub>4</sub> gave 102 mg. XI. XI (100 mg.) and a small amount NaOAc in 5 cc. Ac<sub>2</sub>O heated with the portionwise addition of 3 g. Zn dust until the mixture was colorless gave 116 mg. 1,4,5,8-tetramethyl-2,3,6,7-tetraacetoxydibenzofuran (XII), needles, m. 275-6° (C<sub>6</sub>H<sub>6</sub>). 2,7-Dihydroxy-4,5-dimethyldibenzofuran (30 mg.) in 10 cc. Ac<sub>2</sub>O and 1 cc. C<sub>5</sub>H<sub>5</sub>N heated 15 min. on the water bath, and the crude product chromatographed on silica gel yielded 34 mg. diacetate, needles, m. 181-2° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XI (100 mg.) in 100 cc. Me<sub>2</sub>CO and 5 cc. 2N HCl shaken with Zn dust until colorless gave 30 mg. 2,3,6,7-tetra-OH analog (XIII) of XII, needles, m. 285-300° (decomposition). The ultraviolet spectra of XI and XIII are recorded.

ACCESSION NUMBER: 1964:492144 CAPLUS  
 DOCUMENT NUMBER: 61:92144  
 ORIGINAL REFERENCE NO.: 61:16008a-h  
 TITLE: Formation of hydroxy aryl quinones by the addition of phenols to quinones  
 AUTHOR(S): Musso, Hans; Gazycki, Ulrich v.; Zahorszky, Uwe I.; Bormann, Dieter  
 CORPORATE SOURCE: Univ. Marburg, Germany  
 SOURCE: Ann. (1964), 676, 10-20  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 61:92144  
 IT 104667-25-6P, 2,2',4,4',5-Biphenylpentol, 6-methyl-, pentaacetate  
 107893-61-8P, 2,2',4,4',5-Biphenylpentol, 6'-methyl-, pentaacetate  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 104667-25-6 CAPLUS  
 CN 2,2',4,4',5-Biphenylpentol, 6-methyl-, pentaacetate (7CI) (CA INDEX NAME)



RN 107893-61-8 CAPLUS

CN 2,2',4,4',5-Biphenylpentol, 6'-methyl-, pentaacetate (7CI) (CA INDEX NAME)



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GI For diagram(s), see printed CA Issue.

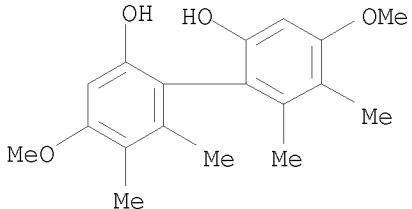
AB cf. CA 57, 11082b. Com. 2,3-Me2C6H3OH (I) coupled with diazotized 4-H2NC6H4SO3H (Ia) and the dye reduced with Na2S2O4 in alkaline solution gave 4-NH2 derivative (II) of I. Crude II (42.7 g.) in 250 cc. 35-8% aqueous HBF4 diazotized with 24 g. NaNO2 in 50 cc. H2O, the mixture stirred 30 min. at room temperature, the precipitate filtered, washed with a little aqueous HBF4,

and

dissolved in 400 cc. MeOH by heating on a water bath, and the solution filtered and refrigerated gave 49.2 g. 2,3,4-Me2(HO)C6H2N2BF4 (III). III (15 g.) in 900 cc. MeOH acidified with 10 cc. concentrated MeOH-HCl and the solution irradiated 9 hrs. with an immersion lamp with cooling (N atm.), concentrated to 20 cc. (rotary evaporator), and cooled at -20° gave 6 g. 2,3,4-Me2(MeO)C6H2OH (IV), m. 96° (petr. ether). IV (1 g.) in 20 cc. MeOH treated with 10 cc. N KOH and the solution added rapidly with stirring to 5 g. K3Fe(CN)6 (V) in 50 cc. 0.5N KOH gave 0.9 g. crude 3,3',4,4'-tetramethyl-5,5'-dimethoxy-2,2'-diphenquinone (VI). 3,3',4,4'-Tetramethyl-5,5'-dimethoxy-o,o'-biphenol (VII) (200 mg.) dissolved in 30 cc. hot MeOH and the solution cooled, and added to 1.5 g. V in 150 cc. 0.2N KOH with stirring gave 0.2 g. VI, blue violet, m. 118° (decomposition). Crude VI reduced with Na2S2O4 in EtOH gave 66% VII, m. 180° (MeOH with C). To 6.5 g. Na in 200 cc. liquid NH3 was added 10 g. 4-methoxy-1-naphthol, the NH3 evaporated at room temperature, the residue treated with 100 cc. H2O, and the solution heated to boiling with 5 g. C, filtered, and acidified with HCl to give 8 g. 5,6,7,8-tetrahydro-4-methoxy-1-naphthol (VIII), m. 117° (1:7 C6H6-petr. ether). VIII oxidized with V as above gave crude IX. Crude IX reduced with Na2S2O4 as above gave 4,4'-dimethoxy-5,5',6,6',7,7',8,8'-octahydro-2,2'-bi-1-naphthol (X), m. 211° (decomposed), reoxidized with V as above to pure IX, blue violet, m. above 150° (decomposition). Reduction of 4-methyl-1-naphthol with Na in liquid NH3 as above gave the 5,6,7,8-tetrahydro derivative, m. 90° which on oxidation gave a blue violet precipitate, which decomposed rapidly on crystallization from C6H6, washing with EtOH, or drying in vacuo. o-Cresol coupled with diazotized Ia, the dye reductively cleaved to 2,4-Me(H2N)C6H3OH, this diazotized, and

subsequently subjected to photodecompn. gave 2,4-Me(MeO)C<sub>6</sub>H<sub>3</sub>OH (XI), m. 70°. Treatment of XI as above gave neither a pure o,o'diphenooquinone or o,o-biphenol compound IX (200 mg.) in 10 cc. C<sub>6</sub>H<sub>6</sub> kept 24 hrs. in the dark, the solution evaporated, the residue reduced with Na<sub>2</sub>S<sub>2</sub>O<sub>4</sub> in EtOH, and the product crystallized from MeOH gave a mixture (XII) of 4,4'-dimethoxy-2,2'-bi-1-naphthol and X. XII in 80% EtOH oxidized with 2 g. FeCl<sub>3</sub> in 20 cc. 80% EtOH gave a blue precipitate of XIII from XII; X was not oxidized by FeCl<sub>3</sub> and remained in solution

ACCESSION NUMBER: 1964:60692 CAPLUS  
 DOCUMENT NUMBER: 60:60692  
 ORIGINAL REFERENCE NO.: 60:10611c-h  
 TITLE: Derivatives of o-diphenooquinone  
 AUTHOR(S): Schulte-Frohlinde, Dietrich; Erhardt, Friedrich  
 CORPORATE SOURCE: Kernforschungszentrum, Karlsruhe, Germany  
 SOURCE: Ann. (1964), 671, 92-7  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 60:60692  
 IT 94265-49-3P, o,o'-Biphenol, 5,5'-dimethoxy-3,3',4,4'-tetramethyl-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 94265-49-3 CAPLUS  
 CN o,o'-Biphenol, 5,5'-dimethoxy-3,3',4,4'-tetramethyl- (7CI) (CA INDEX  
 NAME)



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GI For diagram(s), see printed CA Issue.

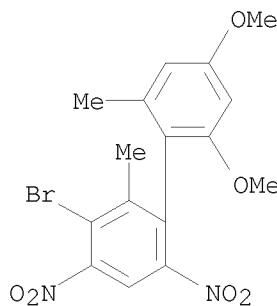
AB cf. CA 59, 6546b. The constitution of I ( $\alpha$ -aminoorcein) was confirmed by unequivocal syntheses. m-AcNH<sub>2</sub>C<sub>6</sub>H<sub>4</sub>Me brominated, and the resulting mixture of 2,6,3-Br<sub>2</sub>(AcNH)C<sub>6</sub>H<sub>2</sub>Me (II) and the 2,4,3-isomer fractionally recrystd. gave II, m. 142-3° (aqueous EtOH and C<sub>6</sub>H<sub>6</sub>). 2,3,5-I(MeO)C<sub>6</sub>H<sub>2</sub>Me(III) (556mg.), 1 g. Cu, and 680 mg. 2,6-dibromo-3,5-dinitrotoluene (IV) in 2 cc. PhNO<sub>2</sub> heated 1 hr. under N at 160°, filtered, and evaporated, and the residue chromatographed on silica gel yielded 82.4 mg. unreacted IV, 413.7 mg. 3-bromo-4,6-dinitro-2,4-dimethoxy-2,2'-dimethyl-biphenyl (V), yellow prisms, m. 139° (sublimed in vacuo at 120°), 111.2 mg. 3,5-dinitro-2,6-bis(2,4-dimethoxy-6-methylphenyl)-toluene, yellow rectangles, m. 233-5° (C<sub>6</sub>H<sub>6</sub>), and 65.5 mg. crystals, m. 275-90°, which gave VI, orange-yellow rodlets (isomer A), m. 320-5° (decomposition) (C<sub>6</sub>H<sub>6</sub>), 6.9% isomer B, m. 265-73°, and 5 mg. isomer C of VI, decompose 300-40°. 2,3-H<sub>2</sub>N(HO)C<sub>6</sub>H<sub>3</sub>Me (VII) (883.1 mg.) in 5 cc. dry C<sub>5</sub>H<sub>5</sub>N treated below 50° with 5 cc. Ac<sub>2</sub>O and evaporated after 3 hrs. yielded 1.460 g. 2,3-AcNH(AcO)C<sub>6</sub>H<sub>3</sub>Me (VIIA), needles, m. 141-3° (sublimed in vacuo at 120°). IV (340 mg.) and 246 mg. VII in 4 cc. HCONMe<sub>2</sub> heated 5 hrs. under N at 130°, cooled, and treated with C<sub>6</sub>H<sub>6</sub> and dilute H<sub>2</sub>SO<sub>4</sub>, and the residue from the C<sub>6</sub>H<sub>6</sub> phase chromatographed on silica gel gave 218.6 mg. 5-bromo-2,4-dinitro-6,6'-dimethyl-2'-

hydroxydiphenylamine (VIII), red prisms, m. 136-7° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). VIII (200 mg.) in 10 cc. Ac<sub>2</sub>O refluxed 15 min. with a small amount NaOAc while distilling off 5 cc. solvent, the mixture evaporated, and the residue chromatographed on silica gel yielded 204 mg. N,O-di-Ac derivative (IX) of VIII, light yellow prisms, m. 190-1°. VIII acetylated similarly but in the absence of NaOAc yielded 11% IX and 41% O-Ac derivative of VIII, yellow rodlets, m. 171-2° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). VII (246 mg.) and 251 mg. 2,6-dichloro-3,5-dinitrotoluene gave in the usual manner 138.7 mg. 5-Cl analog (X) of VIII, red needles, m. 160-1° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). X (52 mg.) acetylated with Ac<sub>2</sub>O-Na-OAc yielded 50.2 mg. N,O-di-Ac derivative of X, m. 180-1° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). IX (4.00 g.) and 3.80 g. III in 20 cc. Ph-NO<sub>2</sub> heated 1.5 hrs. with stirring and treatment with N at 200°, cooled, filtered, distilled with steam, and the dried residue chromatographed on silica gel gave 0.87 g. unchanged III and 4.531 g. N,O-di-Ac derivative (XI) of 2,4-dinitro-5-(2,4-dimethoxy-6-methylphenyl)-6,6'-dimethyl-2'-hydroxydiphenylamine (XII), light yellow lacquer, m. 65-90°, containing 5% 2,4-dinitro-6,6'-dimethyl-2-acetoxy-N-acetyl diphenylamine. Crude XI (250 mg.), 15 cc. MeOH, and 5 cc. concentrated HCl refluxed 2 hrs. and evaporated, and the residue chromatographed on silica gel gave 159 mg. XII, orange-red needles, m. 89-95° (C<sub>6</sub>H<sub>6</sub>), which, in vacuo at 70°, lost 10% C<sub>6</sub>H<sub>6</sub> to give XII, m. 88-90°. XI (4.00 g.) in 40 cc. Me<sub>2</sub>SO and 8 cc. 20% KOH-MeOH heated 20 min. at 70°, diluted with 200 cc. C<sub>6</sub>H<sub>6</sub>, treated with a little urea and then with dilute H<sub>2</sub>SO<sub>4</sub>, washed, dried, and evaporated, and the residue chromatographed on silica gel yielded 108 mg. 3-nitro-1,9-dimethylphenoxyazine, red needles, m. 181-5° (C<sub>6</sub>H<sub>6</sub>-cyclohexane), and 2.40 g. XIII, yellow-brown needles, m. 210-14°, which changes at about 190° to a red modification, m. 213-15°; the red modification was also obtained by recrystg. the yellow-brown from a hot concentrated solution XII (100 mg.) gave analogously 57.3 mg. XIV. V (200 mg.)

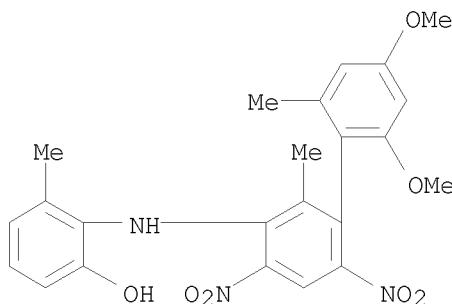
and 200 mg. VIIA in 4 cc. HCONMe<sub>2</sub> refluxed with 80 mg. K<sub>2</sub>CO<sub>3</sub> and a little Cu powder, cooled, treated with 0.5 cc. 20% KOH-MeOH, and worked up, and the crude product chromatographed on silica gel gave 105 mg. viscous, yellow lacquer and 22.8 mg. XIII, brown needles, m. 210-14°; a similar run worked up without KOH yielded 14 mg. N-Ac derivative of XIII, light yellow leaflets, m. 229-31° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XIII (796 mg.) in 50 cc. AcOH refluxed 5 min. with 8.0 g. FeCl<sub>3</sub>.6H<sub>2</sub>O in 10 cc. AcOH, poured into 1.7 l. boiling H<sub>2</sub>O, refluxed again 5 min., diluted with 200 cc. 2N H<sub>2</sub>SO<sub>4</sub>, cooled, and filtered, and the residue chromatographed on silica gel yielded 659 mg. 7-nitro-1,9-dimethyl-8-(2,4-dimethoxy-6-methylphenyl)-3H-phenoxyazine-3-one (XIV) (containing 0.5 mol. C<sub>6</sub>H<sub>6</sub>), m. 130-45°, resolidifying and remelting at 198°; XIV.1/2C<sub>6</sub>H<sub>6</sub> recrystd. from EtOH gave XIV, orange-brown needles, m. 199-201°. XIV (250 mg.) in 5 cc. AcOH refluxed for 5 min. with a little Zn dust, filtered rapidly, treated with 162 mg. FeCl<sub>3</sub>.6H<sub>2</sub>O in 2 cc. H<sub>2</sub>O, diluted with hot H<sub>2</sub>O to 70 ml., and filtered, the filtrate neutralized with NH<sub>4</sub>OH and filtered, and the combined ppts. (248 mg.) chromatographed on silica gel yielded 199.7 mg. di-Me ether (XV) of I, violet-brown needles, m. 165-70°, which lost 5% by weight on drying in vacuo at 130° and then melted at 246-8° (decomposition), m. 246-9° (decomposition) (sublimed in vacuo at 170°). I (100 mg.) in 2 cc. HCONMe<sub>2</sub> refluxed 1 hr. with 0.5 cc. 20% KOH-MeOH and 0.5 cc. Me<sub>2</sub>SO<sub>4</sub>, with the removal of 0.5 cc. solvent and evaporated in vacuo, and the residue dissolved in 200 cc. BuOH, washed, evaporated, and chromatographed gave 28.3 mg. XV, black-violet needles, m. 166-70°. XV (88.8 mg.) in 5 cc. C<sub>5</sub>H<sub>5</sub>N and 5 cc. Ac<sub>2</sub>O evaporated after 15 min., and the residue chromatographed gave 83.2 mg. acetate of XV, red crystals, m. 242-5°. XIV (300 mg.) in 10 cc. AcOH reduced with 400 mg. Zn dust, under N, treated with 4 cc. 20% HCl, evaporated to dryness in

vacuo under N, the light blue residue heated 1 hr. at 180° with 5 g. C5H5N.HCl, the melt dissolved in dilute H<sub>2</sub>SO<sub>4</sub> and BuOH, treated with 200 mg. FeCl<sub>3</sub>.6H<sub>2</sub>O in 5 cc. H<sub>2</sub>O, anti the BuOH phase worked up yielded 86.3 mg. I, violet-black crystals with a greenish luster; the mother liquor gave a red-violet substance, presumably a mono-Me ether of I.

ACCESSION NUMBER: 1963:463013 CAPLUS  
 DOCUMENT NUMBER: 59:63013  
 ORIGINAL REFERENCE NO.: 59:11692c-h,11693a-e  
 TITLE: Orcein pigments. XXI. Synthesis of  $\alpha$ -aminoorcein  
 AUTHOR(S): Musso, Hans  
 CORPORATE SOURCE: Univ. Marburg, Germany  
 SOURCE: Chemische Berichte (1963), 96(7), 1936-44  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 88857-44-7P, Biphenyl, 3-bromo-2',4'-dimethoxy-2,6'-dimethyl-4,6-dinitro- 96368-85-3P, m-Cresol, 2-[3-(4,6-dimethoxy-o-tolyl)-4,6-dinitro-o-toluidino]- 96808-59-2P, o-Acetotoluidide, 3'-(4,6-dimethoxy-o-tolyl)-N-(6-hydroxy-o-tolyl)-4',6'-dinitro-, acetate (ester) 106952-13-0P, m-Terphenyl, 2,2'',4,4''-tetramethoxy-2',6,6'''-trimethyl-4',6'-dinitro- 107744-15-0P, m-1,1':3',1'':3'',1'''-Quaterphenyl, 2,2'',4,4''-tetramethoxy-2',2'',6,6'''-tetramethyl-4',4'',6',6'''-tetrannitro-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 88857-44-7 CAPLUS  
 CN Biphenyl, 3-bromo-2',4'-dimethoxy-2,6'-dimethyl-4,6-dinitro- (7CI) (CA INDEX NAME)



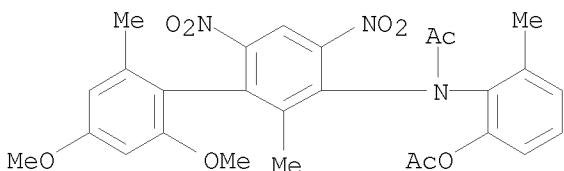
RN 96368-85-3 CAPLUS  
 CN m-Cresol, 2-[3-(4,6-dimethoxy-o-tolyl)-4,6-dinitro-o-toluidino]- (7CI)  
 (CA INDEX NAME)



10584234

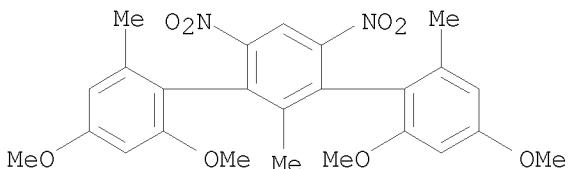
RN 96808-59-2 CAPLUS

CN o-Acetotoluidide, 3'-(4,6-dimethoxy-o-tolyl)-N-(6-hydroxy-o-tolyl)-4',6'-dinitro-, acetate (7CI) (CA INDEX NAME)



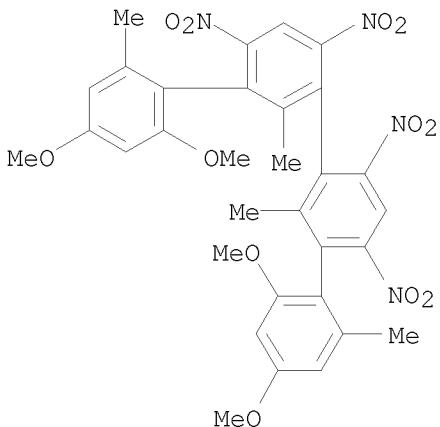
RN 106952-13-0 CAPLUS

CN m-Terphenyl, 2,2',4,4''-tetramethoxy-2',6,6''-trimethyl-4',6'-dinitro- (7CI) (CA INDEX NAME)



RN 107744-15-0 CAPLUS

CN 1,1':3',1''':3'',1'''-Quaterphenyl, 2,2''',4,4'''-tetramethoxy-2',2'',6,6'''-tetramethyl-4',4'',6',6'''-tetranitro- (7CI) (CA INDEX NAME)



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GI For diagram(s), see printed CA Issue.

AB The autoxidn. of 2,5,1,3-Me<sub>2</sub>(HO)2C<sub>6</sub>H<sub>2</sub> (I) in NH<sub>4</sub>OH yielded dyes analogous to those obtained from 3,5-(HO)2C<sub>6</sub>H<sub>3</sub>Me (II). The autoxidn. in aqueous KOH yielded, in addition to the dimeric mono- and diquinone, a trimeric diquinone which could not be identified with certainty in the product from II. The autoxidn. of I proceeds faster and furnishes better yields of the higher oxidized products which are more stable than those from II. I (14 g.) in 140 cc. concentrated NH<sub>4</sub>OH kept 25 days at room temperature in air while being treated

daily with dry NH<sub>3</sub> during a few min., concentrated in vacuo over concentrated H<sub>2</sub>SO<sub>4</sub>,

and dried over P2O<sub>5</sub> yielded 16.8 g. crude, violet-black, amorphous powdery xylorcein which, extracted at about 70° with the upper phase of 5:1:2.6:5 C<sub>6</sub>H<sub>6</sub>-BuOH-AcOH-H<sub>2</sub>O and then chromatographed on cellulose powder, yielded 0.46 g. III (R = OH) (IV), red-brown crystals, m. 340° (decomposition) (MeOH-CHCl<sub>3</sub>), 0.85 g. (crude) trans-V (R = OH) (VI) (the OH groups on the benzene rings are in the trans configuration with respect to the phenoazone plane), red-brown crystals, m. 280° (MeOH-CHCl<sub>3</sub>), 0.94 g. (crude) cis-V (R = OH) (VIA), red-brown crystals, m. 280° (decomposition), 0.35 g. (crude) III (R = NH<sub>2</sub>) (VII), red rodlets, m. 370° (decomposition) (MeOH-CHCl<sub>3</sub>), 0.90 g. (crude) trans-VIII (R = O) (IX) rodlets with a green-black luster, m. 300° (decomposition), 1.30 g. (crude) cis-VIII (R = O), (IXA), green-black glistening rodlets, m. 350° (decomposition), 0.26 g. trans-X (XI), green-black glistening crystals, m. 350° (decomposition) (MeOH-CHCl<sub>3</sub>), 0.38 g. (crude) cis-X, green-black needles, m. 350° (decomposition) (MeOH-CHCl<sub>3</sub>), 0.35 g. (crude) cis-VIII (R = NH) (XII), and 0.25 g. (crude) trans-VIII (R = NH) (XIIA). IV (50 mg.) in 5 cc. dry C<sub>5</sub>H<sub>5</sub>N treated at room temperature with 5 cc. Ac<sub>2</sub>O, evaporated after 24 hrs., and the residue chromatographed on silica gel yielded 26 mg. red triacetate B of IV, m. 222-5° (decomposition) (C<sub>6</sub>H<sub>6</sub>-cyclohexane), and 7 mg. triacetate A of IV, yellow needles, m. 234-7° (decomposition). VI (100 mg.) gave similarly 15.9 mg. orange triacetate of VI, m. 240° (decomposition) (C<sub>6</sub>H<sub>6</sub>-cyclohexane). VI (52 mg.) in 20 cc. EtOH warmed 5 hrs. on the water bath with 250 mg. o-C<sub>6</sub>H<sub>4</sub>(NH<sub>2</sub>)<sub>2</sub> (XIII) in 10 cc. AcOH and evaporated, and the residue evaporated with

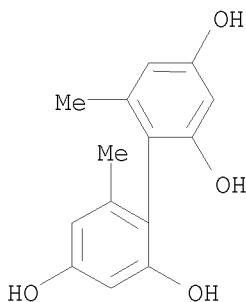
C<sub>5</sub>H<sub>5</sub>N and chromatographed on silica gel yielded 20 mg. phenazine derivative of VI, orange crystals, m. 231-3° (decomposition) (C<sub>6</sub>H<sub>6</sub>-cyclohexane). VIA (43 mg.) treated 24 hrs. with Ac<sub>2</sub>O-C<sub>5</sub>H<sub>5</sub>N at room temperature and evaporated, and the

residue chromatographed on CaSO<sub>4</sub> yielded 21 mg. triacetate of VIA, orange-yellow crystals, m. 239-42° (decomposition). VIA (77 mg.) and XIII yielded 16.5 mg. yellow phenazine derivative, m. 213-17° (decomposition) (C<sub>6</sub>H<sub>6</sub>-cyclohexane). VII (120 mg.), Ac<sub>2</sub>O, and NaOAc refluxed 20 min., and the crude product chromatographed successively on silica gel and CaSO<sub>4</sub> yielded 10.5 mg. red triacetate of VII, m. 160-3° (decomposition). IX (139 mg.) acetylated and chromatographed on silica gel gave 34 mg. N-Ac tetraacetate derivative of IX, red rodlets, m. 165-70° (decomposition). IXA (96 mg.) acetylated with Ac<sub>2</sub>O-NaOAc and chromatographed on CaSO<sub>4</sub> yielded 21 mg. N-Ac tetraacetate derivative of IXA, orange-red crystals, m. 172-5° (decomposition). XI (30 mg.) with C<sub>5</sub>H<sub>5</sub>N-Ac<sub>2</sub>O yielded during 3 days at room temperature 13 mg. N-Ac triacetate derivative of XI, orange crystals,

m. 164-7° (decomposition) (C<sub>6</sub>H<sub>6</sub>-cyclohexane), cis-X (55 mg.) yielded similarly 13.9 mg. N-Ac triacetate derivative of cis-X, red-orange crystals, m. 172-5° (decomposition) (C<sub>6</sub>H<sub>6</sub>-cyclohexane). Crude XII (160 mg.) or 120 mg. XIIA were repptd. from a few cc. MeOH with C<sub>6</sub>H<sub>6</sub> and filtered, and the blue amorphous residues, which did not melt up to 340° but decomposed with effervescence when inserted at 240°, were isolated as XII.1/2H<sub>2</sub>SO<sub>4</sub> and XIIA.1/2H<sub>2</sub>SO<sub>4</sub>.MeOH, resp. Pure VI or VIA (1 mg.), each in 1 cc. glycerol heated in vacuo in a sealed tube at 185° and partitioned after 1 hr. between BuOH-H<sub>2</sub>O, and the residues from the red BuOH phases chromatographed on cellulose powder showed that both dyes were isomerized to about 50%. IX and IXA heated to 200° during 1 hr. turned red-brown; in glycerol during 1.5 hrs. at 200° only brown-black decomposition products were formed. I (10 g.) and 8.6 g. KOH in 200 cc. H<sub>2</sub>O kept 5 days at room temperature in the air, acidified with dilute H<sub>2</sub>SO<sub>4</sub>, and extracted with BuOH yielded 8.6 g. dark brown mass which dissolved in 100 cc. upper phase of BuOH-0.2M phosphate buffer (pH 7) and

chromatographed on cellulose powder yielded 2.2 g. 6-hydroxy-2,5-dimethyl-3-(4,6-dihydroxy-2,5-dimethylphenyl)-1,4-benzoquinone (XIV), red rodlets, m. 223-4° (MeOH CHCl<sub>3</sub>), 60 mg. 2,5-dimethyl-4,6-bis(4-hydroxy-3,6-dioxo-2,5-dimethyl-1,4-cyclohexadienyl)resorcinol (XV), orange rodlets, m. 282-3° (MeOH), pK 6.80, and 752 mg. 4,4'-dihydroxy-3,6,3'6'-tetramethylbiphenyl-2,5,2',5'-diquinone (XVI), orange-yellow rhombs, m. 208-10° (MeOH and sublimed in vacuo at 170°). XIV (195 mg.) in 5 cc. C<sub>5</sub>H<sub>5</sub>N and 5 cc. Ac<sub>2</sub>O evaporated after 0.5 hr. and chromatographed on silica gel yielded 197 mg. triacetate of XIV, yellow crystals, m. 156-7° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XIV (245 mg.), 5 cc. Ac<sub>2</sub>O, and a little NaOAc refluxed 5 min. while being treated with Zn dust in small portions and evaporated yielded 380 mg. 3,4,6,4',6'-pentaacetoxy-2,5,2',5'-tetramethylbiphenyl, m. 182-3° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XIV (175 mg.) and 200 mg. XIII in 4 cc. AcOH heated 0.5 hr. on the water bath and evaporated, and the residue chromatographed on silica gel yielded 150 mg. phenazine derivative (XVII), yellow-green crystals, m. 259-60° (EtOH-C<sub>6</sub>H<sub>6</sub>). XVII (120 mg.) acetylated with 5 cc. C<sub>5</sub>H<sub>5</sub>N and 5 cc. Ac<sub>2</sub>O, and the product chromatographed on silica gel yielded 118 mg. triacetate of XVII, yellow-brown crystals, m. 200-2° (EtOH). XV (14.4 mg.) in 5 cc. Ac<sub>2</sub>O refluxed 5 min. with a small amount NaOAc while being treated with Zn dust in small portions, and the product chromatographed on silica gel gave 13.2 mg. 3,5-diacetoxy-2,6-bis(3,4,6-triacetoxy-2,5-dimethylphenyl)-p-xylene, m. 204-5° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XVI (113 mg.) yielded similarly 109 mg. yellow diacetate of XVI, m. 142-3° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XVI (86 mg.) acetylated reductively yielded 126 mg. [2,5,3,4,6-Me<sub>2</sub>(AcO)<sub>3</sub>C<sub>6</sub>]<sub>2</sub>, m. 188-90° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). XVI (47 mg.) and 150 mg. XIII in 5 cc. AcOH heated 0.5 hr. on the water bath, and the product chromatographed on silica gel yielded 20 mg. phenazine derivative (XVIII), black-blue needles, m. 229-31° (EtOH). XVIII (200 mg.) in 3 cc. C<sub>5</sub>H<sub>5</sub>N treated with 5 cc. Ac<sub>2</sub>O and evaporated immediately in vacuo and the residue chromatographed on silica gel yielded 94 mg. 3,3'-diacetoxy-1,4,1',4'-tetramethyl-2,2'-biphenazine, pale yellow, m. 299-300° (C<sub>6</sub>H<sub>6</sub>-cyclohexane). The infrared absorption maximum of the various compds. described and the ultraviolet absorption maximum of the various quinone are tabulated.

ACCESSION NUMBER: 1963:436058 CAPLUS  
 DOCUMENT NUMBER: 59:36058  
 ORIGINAL REFERENCE NO.: 59:6546h, 6547a-h, 6548a-e  
 TITLE: Orcein pigments. XX. The autoxidation products of 2,5-dimethylresorcinol in ammonia and potassium hydroxide  
 AUTHOR(S): Musso, Hans; Zahorszky, Uwe I.  
 CORPORATE SOURCE: Univ. Marburg, Germany  
 SOURCE: Chemische Berichte (1963), 96, 1593-1609  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 4946-96-7, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
     (spectrum of)  
 RN 4946-96-7 CAPLUS  
 CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



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 GI For diagram(s), see printed CA Issue.

AB The striking difference in the absorption spectra and pK values between resorcinol blue and orcein dyes is explained by steric resonance hindrance and H bonds and confirmed on colorless tetrahydroxybiphenyl derivs. The pK values are given for the following compds.: I ( $R = OH, R' = H$ ) 6.40; I ( $R = OH, R' = Me$ ) 6.76; II ( $R = OH, R' = H$ ) 5.31; II ( $R = OH, R' = Me$ ) 4.64; III ( $R = OH, R'' = Me$ ) 7.15; III ( $R = OH, R' = Me, R'' = H$ ) 7.35; IV ( $R = OH$ ) 7.46. The ultraviolet absorption spectra of [2,4(HO)2C6H3]2, [4,2,6-Me(HO)2C6H2]2, 2,4-(HO)2C6H3Me, 1,4,3,5Me2(HO)2C6H2, 1,2,3,5-Me2(HO)2C6H2, and [2,4,6-Me(HO)2C6H2]2 are recorded.

ACCESSION NUMBER: 1963:436057 CAPLUS

DOCUMENT NUMBER: 59:36057

ORIGINAL REFERENCE NO.: 59:6546e-h

TITLE: Orcein pigments. XIX. The effect of ortho-methyl groups on the electronic spectra and pK values of orcein dyes and hydroxybiphenyl derivatives

AUTHOR(S): Musso, Hans; Zahorszky, Uwe I.

CORPORATE SOURCE: Univ. Marburg, Germany

SOURCE: Chemische Berichte (1963), 96, 1588-92

CODEN: CHBEAM; ISSN: 0009-2940

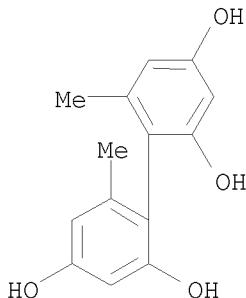
DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

IT 4946-96-7, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
 (spectrum of)

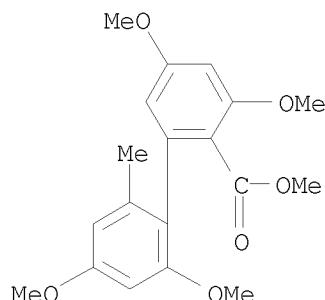
RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)

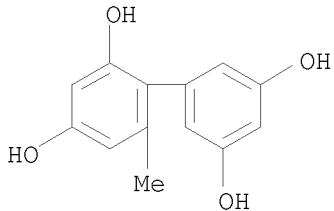


AB cf. CA 54, 22821g. The biosynthesis of alternariol (I), C<sub>14</sub>H<sub>10</sub>O<sub>5</sub>, from Alternaria tenuis has been studied. Chemical degradation of labeled I derived from AcONa-1-C<sub>14</sub> (CA 48, 799i) demonstrated a biosynthetic mechanism involving head-to-tail condensation of Aco units. I was methylated to the tri-Me ether with Me<sub>2</sub>SO<sub>4</sub> and K<sub>3</sub>CO<sub>2</sub> in anhydr. acetone by refluxing the mixture. Kuhn-Roth oxidation of the trimethyl ether derivative yielded AcO- quant. Hydrolysis of I tri-Me ether by refluxing with N NaOH followed by the addition of Me<sub>2</sub>SO<sub>4</sub> and boiling for 1 min. yielded the Me ester of 2,3',4,5'-tetramethoxy-6-methylbiphenyl-2'-carboxylic acid, m. 124°. Demethylation yielded 2,3', 4', 5'-tetrahydroxy-6-methylbiphenyl, (II), m. 246-8°. Nitration of II after treatment at 100° in concentrated H<sub>2</sub>SO<sub>4</sub> for 30 min. was accomplished in an ice bath with concentrated HNO<sub>3</sub> subsequently raised to 70° to yield 2,3',4,5'-tetrahydroxy-6-methyl-3,4', 5,6'-trianitrobiphenyl-2'-sulfonic acid, (III), m. 246°. III was degraded with hypobromite in saturated Ba(OH)<sub>2</sub>. The tri-Me ether of I was oxidized with KMnO<sub>4</sub> in N NaOH to yield 3,5-dimethoxyphthalic acid, m. 153-6°, and 4,6-dimethoxyphthalic acid, m. 173° (decompose). The dehydration of 3,5-dimethoxyphthalic acid yielded the anhydride, m. 148-9°. Reductive decarboxylation of 4,6-dimethoxyphthalic acid with red P and HI yielded CO<sub>2</sub> and 3,5-dihydroxyphenylacetic acid, m. 130°, which was decarboxylated by heating the solid in a stream of N gas at 270° to yield orcinol, m. 107-8°, which sublimed. Orsellinic-carboxy-C<sub>14</sub> acid was prepared from orsellin aldehyde-formyl-C<sub>14</sub> (Adams and Levine, CA 17, 3867; Hoesch, CA 7, 2396). The possibility that orsellinic acid is a common precursor with other fungal phenols containing C<sub>14</sub> skeletons is discussed.

ACCESSION NUMBER: 1961:71148 CAPLUS  
 DOCUMENT NUMBER: 55:71148  
 ORIGINAL REFERENCE NO.: 55:13536c-f  
 TITLE: Biosynthesis of fungal metabolites. II. The biosynthesis of alternariol and its relation to other fungal phenols  
 AUTHOR(S): Thomas, R.  
 CORPORATE SOURCE: Univ. London  
 SOURCE: Biochemical Journal (1961), 78, 748-58  
 CODEN: BIJOAK; ISSN: 0264-6021  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 31185-72-5, 2-Biphenylcarboxylic acid, 2',3,4',5-tetramethoxy-6'-methyl-, methyl ester 100397-25-9, 2,3',4,5'-Biphenyltetrol, 6-methyl- (as alternariol degradation product)  
 RN 31185-72-5 CAPLUS  
 CN [1,1'-Biphenyl]-2-carboxylic acid, 2',3,4',5-tetramethoxy-6'-methyl-, methyl ester (CA INDEX NAME)



RN 100397-25-9 CAPLUS  
 CN 2,3',4,5'-Biphenyltetrol, 6-methyl- (6CI) (CA INDEX NAME)



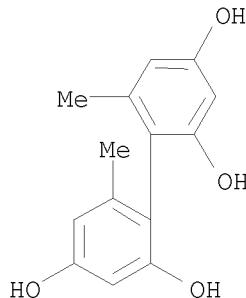
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AB cf. CA 54, 15322c. o,o'-Dihydroxybiphenyls showed an extraordinarily high acidity in the 1st dissociation step and a large difference in the 2nd step if a stable H bridge could form in the monoanion. If the H bridge was hindered by substituents in the 6,6'-position, the OH groups dissociated practically independently from each other. The dissociation of hydroxybiphenylquinones was investigated spectroscopically and by potentiometric titration. (o-HOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub> (18.6 g.) in 100 cc. Me<sub>2</sub>CO and 7.9 g. K<sub>2</sub>CO<sub>3</sub> treated at reflux with stirring with 5.05 g. Me<sub>2</sub>SO<sub>4</sub> in 20 cc. Me<sub>2</sub>CO during 40 min., the mixture refluxed 1 hr., evaporated, the residue diluted

with 100 cc. H<sub>2</sub>O, acidified, extracted with Et<sub>2</sub>O, the extract washed with N Na<sub>2</sub>CO<sub>3</sub> and N NaOH, and evaporated yielded 7.62 g. o-MeOC<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>OH-o (I), m. 73-4° (50% AcOH). I (0.83 g.) in 10 cc. C<sub>5</sub>H<sub>5</sub>N-Ac<sub>2</sub>O kept 3 hrs. at room temperature gave 100% viscous oily acetate of I, b<sub>0.05</sub> 85-90°, n<sub>20D</sub> 1.5778. Phoenicin (II) (268 mg.) in 50 cc. dry CHCl<sub>3</sub> refluxed 7 min. with 250 mg. Ag<sub>2</sub>O and 5 cc. MeI, treated again with the same amts. of Ag<sub>2</sub>O and MeI, concentrated to half-volume after 12 min., filtered, washed with CHCl<sub>3</sub>, evaporated in vacuo, and the residue chromatographed on cellulose powder yielded 70 mg. unchanged II, 101 mg. mono-Me ether (III) of II.MeOH, m. 70° resolidified and rem. 139-44° (decomposition) [the melt solidified to long needles of III, m. 230-2° (decomposition)], and 79 mg. di-Me ether of III, m. 130-1° (C<sub>6</sub>H<sub>6</sub>-cyclohexane and sublimed at 110° in vacuo), followed by 61 mg. red-brown lacquer. III (30.1 mg.) heated on the microscope stage 2 hrs. at 140-5° and sublimed in vacuo gave 19.4 mg. 2,7-dimethylbenzofuran[1,4;5,8]diquinone (anhydropheonicin). The pK values in 50% MeOH and in H<sub>2</sub>O were determined titrimetrically and spectroscopically in both cases: PhOH, 10.78, 10.74, 9.98, 9.99; m-MeC<sub>6</sub>H<sub>4</sub>OH, -, -, -, 10.11; 2-C<sub>10</sub>H<sub>7</sub>OH, 10.56, 10.64, 9.97, -; 3,5-(HO)C<sub>6</sub>H<sub>3</sub>Me, 10.50, 10.66, 9.38, 9.48 (pK1) [11.96, -, 11.20, - (pK2)]; o-HOC<sub>6</sub>H<sub>4</sub>Ph, 11.22, 11.24, -, 10.01; I, 11.32, 11.42, -, 10.40; (o-HOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>, 8.00, 7.94, 7.56, 7.46 (pK1) [12.20, above 13.00, 11.80, above 13.00 (pK2)]; 3,2-(o-HOC<sub>6</sub>H<sub>4</sub>)C<sub>10</sub>H<sub>6</sub>OH, 7.94, 8.00, -, 7.55 (pK1) [11.98, above 13.00, -, above 13.00 (pK2)]; (m-HO-C<sub>6</sub>H<sub>4</sub>)<sub>2</sub>, 10.26, -, -, - (pK1) [10.90, 11.02, -, 9.86 (pK1.2)] 11.44, -, -, -(pK2); (p-HOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>, 10.40, -, -, - (pK1) [11.10, -, -, 9.62 (pK1.2); 11.70, -, -, - (pK2)]; [2,4-Me(HO)C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>, 10.70, -, -, - (pK1) [11.24, -, -, 10.11 (pK1.2); 11.70, -, -, - (pK2)]; [6,2-Me(HO)C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>, 11.22, -, -, -, (pK1) [11.80, 11.72, -, 10.45 (pK1.2); 12.14, -, -, -, (pK2)]; (2-HOC<sub>10</sub>H<sub>6</sub>)<sub>2</sub>, 10.64, -, -, - (pK1) [11.10, -, -, -, (pK1.2); 11.68, -, -, -(pK2)]; [2,4-(HO)C<sub>6</sub>H<sub>3</sub>]<sub>2</sub> (IV), 7.88, -, 7.44, - (pK1) [10.75, -, 10.10, - (pK2)]; [4,2,6-Me(HO)C<sub>6</sub>H<sub>2</sub>]<sub>2</sub> (V), 9.04, -, 8.54, - (pK1) [9.36, -, 8.80, 8.94 (pK1.2); 9.72, -, 9.30, - (pK2); 12.03, -, 11.32, - (pK3); 12.16, -, 11.70, - (pK3.4)]; [6,2,4-Me(HO)C<sub>6</sub>H<sub>2</sub>]<sub>2</sub> (VI), 10.20, -, 9.34, - (pK1) [10.68, -, 9.90, 9.86 (pK1.2); 11.15, -, 10.45, - (pK2); 11.92, -, 11.45,

- (pK3); 12.16, -, 11.65, - (pK3.4)]; 4,5-dihydroxy-2,7-dimethyldibenzofuran, 8.15, 7.90, -, - (pK1) [11.84, above 13.00, -, - (pK2)]; 2,7-dihydroxy-4,5-dimethyldibenzofuran, 9.90, -, -, - (pK1) [10.58, -, -, - (pK1.2); 11.07, -, -, - (pK2)]; 1,8-C<sub>10</sub>H<sub>6</sub>(OH)<sub>2</sub>, 7.46, 7.42, -, 6.71 (pK1) [12.16, above 13.00, -, above 13.00 (pK2)]; o-HOC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H, 3.74, -, 3.00 (pK1) [12.11, -, 11.70, - (pK2)]; 6-hydroxytoluquinone (VII) about 4.60, about 4.60, -, about 4.04; 3-[2,4,6-Me(OH)C<sub>6</sub>H<sub>2</sub>] derivative (VIII) of VII, 5.38, 5.26, -, 4.37 (pK1) [10.40, 10.52, -, 9.49 (pK2)]; 6,6'-dihydroxy-3,3'-ditoludiquinone, 4.33, -, 3.93 (pK1) [4.88, 4.80, 4.28, 4.10 (pK1.2); 5.45, -, 4.79, - (pK2)]; II, 3.95, 3.85, 3.45, 3.02 (pK1) [7.30, 7.18, 6.00, 5.95 (pK2)]; III, 4.02, 4.07, -, 3.04. The infrared absorption spectrum of I, the titration curves of IV, V, and VI in 50% MeOH with 0.1N KOH in 50% MeOH, and the absorption spectra of VIII in 50% MeOH in dependence on the pH were recorded.

ACCESSION NUMBER: 1961:64900 CAPLUS  
 DOCUMENT NUMBER: 55:64900  
 ORIGINAL REFERENCE NO.: 55:12349f-i,12350a-e  
 TITLE: Hydrogen bonds. IV. Acidity and hydrogen bonds in hydroxybiphenylenes and hydroxybiphenyl quinones  
 AUTHOR(S): Musso, Hans; Matthies, Hans-Georg  
 CORPORATE SOURCE: Univ. Gottingen, Germany  
 SOURCE: Chemische Berichte (1961), 94, 356-68  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 4946-96-7, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl- (acidity of)  
 RN 4946-96-7 CAPLUS  
 CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



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 AB cf. C.A. 52, 10091b; Henrich, C.A. 33, 1657. Henrich's formula suggesting that the quinone obtained by autoxidation of orcinol in aqueous KOH is 3,6,6'-trihydroxy-2,2'-dimethyldiphenoquinone is improbable due to steric hindrance. The monoquinone 6-hydroxy-3-(4,6-dihydroxy-2-tolyl)toluquinone (I) has been prepared by synthesis. Successive methylation of 2-nitro-3,5-dihydroxytoluene with 3 equivs. Me<sub>2</sub>SO<sub>4</sub> in 10% aqueous NaOH gives 2-nitro-3,5-dimethoxytoluene, m. 106°. A solution containing 1.28 g. product in 20 cc. MeOH is diluted with 45 cc. hot dilute H<sub>2</sub>SO<sub>4</sub> and treated with Zn dust until colorless when boiled. MeOH is evaporated, dilute NaOH added, and the mixture extracted with Et<sub>2</sub>O to give 2-amino-3,5-dimethoxytoluene (II), b<sub>0</sub>.04 70°, which discolors in air. A solution of 37 mg. II in 1 cc. pyridine and 1 cc. Ac<sub>2</sub>O is left 24 hrs. and then evaporated in vacuo at 20° to yield 30.2 mg. 2-acetamido-3,5-dimethoxytoluene, m.

152°. Diazotization of 0.5 g. II in 5 cc. dilute H<sub>2</sub>SO<sub>4</sub> by dropwise addition of 0.21 g. NaNO<sub>2</sub> in 1 cc. H<sub>2</sub>O at 0° gives the diazonium salt solution (III); after 15 min. 0.55 g. KI in 1 cc. H<sub>2</sub>O is then added, the mixture warmed 2 hrs. at 80° until N evolution is complete, and extracted with C<sub>6</sub>H<sub>6</sub>. Impurities are removed from the washed, dried solution by adsorption on Al<sub>2</sub>O<sub>3</sub>; evaporation yields 72% 2-iodo-3,5-dimethoxytoluene (IV), m. 84-6°. Monoiodoorcinol on methylation with Me<sub>2</sub>SO<sub>4</sub> in aqueous NaOH at 100° and on extraction with Et<sub>2</sub>O and distillation gives orcinol di-Me ether, b.p. 80°, and a mixture, b.p. 160°, separated at 10-3 mm. into IV, b. 70-80°, as well as diiodo-3,5-dimethoxytoluene (V), subliming and m. 202-3°. Direct iodination of 3.08 g. 2,4-dimethoxytoluene with 5.30 g. iodine and 4.70 g. PbO, started by adding 0.05 g. HgO and refluxing 48 hrs., is followed by chromatography of the C<sub>6</sub>H<sub>6</sub> solution on Al<sub>2</sub>O<sub>3</sub> to remove impurities and gives 2.4% V, 38% IV, and a mixture containing mono- and diiodo isomers. Deiodination of 2.52 g. IV with 7 g. electrolytic Cu in the absence of air at 100° and then for 5 hrs. at 200° is followed by extraction with C<sub>6</sub>H<sub>6</sub> and chromatography giving 90% 4,4',6,6'-tetramethoxy-2,2'-bitolyl, m. 103-4°. This product (1.87 g.) is warmed with pyridinium chloride to 150°, then at 180° for 1 hr., and finally at 200° for 0.25 hr. Extraction by Et<sub>2</sub>O, alkaline extraction of the solution under N, acidification, and extraction by Et<sub>2</sub>O gives 4,4',6,6'-tetrahydroxy-2,2'-bitolyl (VI), m. 237-9°, yellowing in aqueous solution and turning brown in alkali. Treatment of the tetra-Me ether with HI gives 43% VI and 45% 2,7-dihydroxy-4,5-dimethyldibenzofuran, m. 247-8°. VI with Ac<sub>2</sub>O gives the tetraacetate, m. 136-7°. Oxidation of a solution of 0.5 g. VI and 1 g. K<sub>2</sub>HPO<sub>4</sub> in 15 cc. H<sub>2</sub>O by dropwise addition of 2 moles K nitrosodisulfonate at 0°, acidification, crystallization from the filtrate, and recrystn. from AcOH, H<sub>2</sub>O-EtOH, or CHCl<sub>3</sub>-EtOH gives I, m. 131-2° (decomposition), purified by distribution chromatography. On treatment with Zn dust and Ac<sub>2</sub>O, I gives 3,4,4',6,6'-pentaacetoxy-2,2-bitolyl (VII), m. 154°, also obtained by hydrogenation of the solution in Ac<sub>2</sub>O with 1.1 moles H over Pd-BaSO<sub>4</sub>, when some leucohexaacetate, m. 194-201°, is also formed. Oxidation of 0.5 g. VI with 4 moles K nitrosodisulfonate at 0° yields 4,4'-dihydroxy-2,2'-bitolyldiquinone (VIII), m. 207° (discoloring from 180°), which on treatment with Zn and Ac<sub>2</sub>O gives 3,3',4,4',6,6'-hexaacetoxy-2,2'-bitolyl (IX), m. 199-201°. Genuine Henrich's quinone is prepared, m. 155-9° (decomposition), together with some diquinone, m. 175-80° (decomposition). Reductive acetylation gives VII and IX and distribution chromatography of Henrich's quinone with BuOH-0.2M phosphate buffer at pH 7.10 on 3 cellulose columns gives I and VIII, identified by m.p. Treatment of I with o-phenylenediamine gives 3-hydroxy-1-methyl-2-(4,6-dihydroxy-2-tolyl)phenazine, m. 298-300° (acetate, m. 160° and 168°), and treatment of VIII with o-phenylenediamine gives 3,3'-dihydroxy-1,1'-dimethyl-2,2'-biphenazine, m. 220-30° (diacetate, m. 221°). Oxidation of orcinol hydrate with K nitrosodisulfonate gives 6-hydroxytoluquinone, m. 117-27°, yielding 3-hydroxy-1-methylphenazine, decompose 290° (acetate, m. 149°). Resolution of a solution of I buffered to pH 9.0 by fractional chromatography on a column of starch grains of 0.05-0.075 mm. for 3 days gives  $[\alpha]_D^{20}$  153-4° or -153-4° for the isomer.

ACCESSION NUMBER: 1958:104063 CAPLUS  
 DOCUMENT NUMBER: 52:104063  
 ORIGINAL REFERENCE NO.: 52:18306b-i, 18307a-b  
 TITLE: Orcein dyes. VII. Synthesis, constitution, and light absorption of Henrich's quinone  
 AUTHOR(S): Musso, Hans  
 CORPORATE SOURCE: Univ. Gottingen, Germany  
 SOURCE: Chemische Berichte (1958), 91, 349-63

10584234

CODEN: CHBEAM; ISSN: 0009-2940

DOCUMENT TYPE: Journal

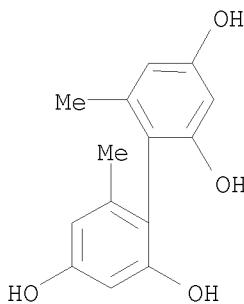
LANGUAGE: Unavailable

IT 4946-96-7P, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
20261-64-7P, o,o'-Bitolyl, 4,4',6,6'-tetramethoxy-  
114399-85-8P, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-,  
tetraacetate 124116-64-9P, 2,2',4,4',5-Biphenylpentol,  
6,6'-dimethyl-, pentaacetate 124202-23-9P, 2,2',4,4',5,5'-  
Biphenylhexol, 6,6'-dimethyl-, hexaacetate

RL: PREP (Preparation)  
(preparation of)

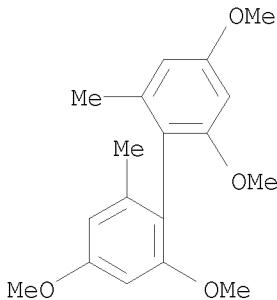
RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



RN 20261-64-7 CAPLUS

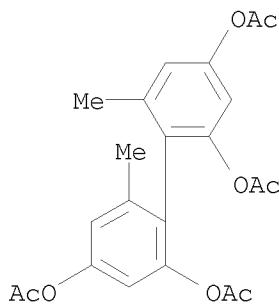
CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl- (CA INDEX NAME)



RN 114399-85-8 CAPLUS

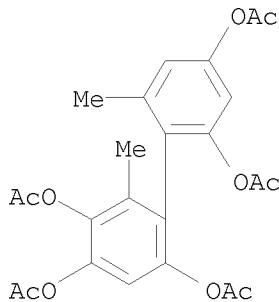
CN 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-, tetraacetate (6CI) (CA INDEX NAME)

10584234



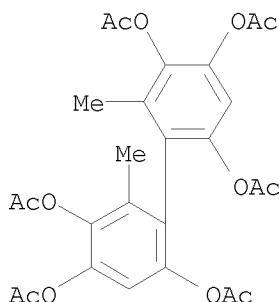
RN 124116-64-9 CAPLUS

CN 2,2',4,4',5-Biphenylpentol, 6,6'-dimethyl-, pentaacetate (6CI) (CA INDEX  
NAME)



RN 124202-23-9 CAPLUS

CN 2,2',4,4',5,5'-Biphenylhexol, 6,6'-dimethyl-, hexaacetate (6CI) (CA INDEX  
NAME)



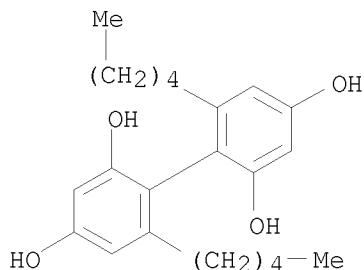
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GI For diagram(s), see printed CA Issue.

AB A structure for picrolichenic acid (I), C<sub>25</sub>H<sub>30</sub>O<sub>7</sub>, is proposed (cf. Zopf,  
Ann. 321, 32(1902)). I is optically inactive and contains OH, OMe, CO,  
CO<sub>2</sub>H, lactone, and two C-Me groups. With CH<sub>2</sub>N<sub>2</sub> it gives a mono-Me ester,  
m. 102-3.5°, and a neutral O,O-di-Me derivative, m. 80-2°. I  
with KMnO<sub>4</sub> gives caproic acid. In NaOH acidified in the cold it gives a  
gum which loses CO<sub>2</sub> to form a monocarboxylic acid, C<sub>24</sub>H<sub>32</sub>O<sub>6</sub> (II), m.  
145-8° (decomposition). II on boiling with HBr undergoes

decarboxylation and demethylation to diolevitol (III), m. 180-1°. Dehydration of III with ZnCl<sub>2</sub> gives a highly fluorescent phenol, C<sub>22</sub>H<sub>28</sub>O<sub>3</sub>; the di-Me ether, m. 71.5-3°, of the latter is oxidized with permanganate to a dicarboxylic acid, the di-Me ester of which, m. 191-3.5°, is identical with 3,7-dimethoxy-1,9-dicarbomethoxydibenzofuran (cf. Shibata, C.A. 45, 7100d). I is the first example of a lichen acid formed by intramol. C-C coupling (cf. Festschr. Arthur Stoll, Basel, 1957, p. 144; Barton and Cohen, ibid., p. 117).

ACCESSION NUMBER: 1958:6282 CAPLUS  
 DOCUMENT NUMBER: 52:6282  
 ORIGINAL REFERENCE NO.: 52:1114h-i,1115a-b  
 TITLE: Picrolichenic acid, a new type of lichen acid  
 AUTHOR(S): Erdtman, H.; Wachtmeister, C. A.  
 CORPORATE SOURCE: Roy. Inst. Technol., Stockholm  
 SOURCE: Chemistry & Industry (London, United Kingdom) (1957) 1042  
 CODEN: CHINAG; ISSN: 0009-3068  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 98985-63-8P, 2,2',4,4'-Biphenyltetrol, 6,6'-dipentyl-  
     RL: PREP (Preparation)  
       (preparation of)  
 RN 98985-63-8 CAPLUS  
 CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dipentyl- (CA INDEX NAME)



L18 ANSWER 77 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN  
 GI For diagram(s), see printed CA Issue.  
 AB cf. C.A. 38, 12186. [The nomenclature and numbering of the biquinones OC.CH:CR.CO.CR'':CC:CR'.CO.CR:CH.CO (A) and the (dihydroxy- or alkoxyphenyl)-p-benzoquinones OC.CH:CR.CO.CR'':CC:CH.C(OR'):CR.CH:COR' (B) or their tautomeric forms OC.CH:CR.C(OR'):CR'':C:C.CH:C(OR').CR:CH.CO(B') in the original of this paper differ from C.A. usage. In this abstract the compds. are designated by A, B, or B', followed in parentheses by R, R', and R'' in that order.] A mixture of 23 g. powdered A (Me, H, H) (I) and 92 g. p-C<sub>6</sub>H<sub>4</sub>(OH)<sub>2</sub> added to 2.3 l. boiling water, boiled 1-2 min. and the air-dried product washed with boiling water yielded 20 g. B (or B') (Me, H, H) (II), m. 256-8° (corrected). AlCl<sub>3</sub> (2.5 g.) added to 500 mg. toluquinone in 6 cc. CS<sub>2</sub>, the mixture shaken 30 min. at room temperature, and the air-dried product added portionwise to 50 cc. 2N HCl at 0° yielded 230 mg. II, m. 256-8°. II in EtOH oxidized with FeCl<sub>3</sub> yielded I. Powdered anhydrous AlCl<sub>3</sub> (15 g.) added to 3 g. phenyl-p-benzoquinone in 60 cc. CS<sub>2</sub>, the mixture shaken 5 hrs., the air-dried product decomposed with 10% HCl at 0°, washed with boiling EtOH, and the residue recrystd. from PhNO<sub>2</sub> yielded 1.5 g. B (or B') (Ph, H, H) (III), m. 312-15° (corrected). Powdered III (400 mg.) in 10 cc. AcOH treated with 1 cc. 6N CrO<sub>3</sub> in AcOH, and

the mixture shaken 1 hr., allowed to stand overnight, and poured into 10 cc. water yielded 370 mg. A (Ph, H, H), m. 304-9° (corrected). Powdered II (18 g.) added in 3- to 5-g. portions to 95 cc. Ac<sub>2</sub>O and 5 cc. H<sub>2</sub>SO<sub>2</sub> at 0°, and the mixture allowed to stand 3 hrs. at room temperature and poured into 10-15 parts ice water yielded 28 g. 2,3,3',6,6'-pentaacetoxy-4,4'-ditolyl (IV), m. 165-6°. IV (19 g.) refluxed 20 min. in 160 cc. N HCl under H and the product concentrated to 50 cc. and dried over KOH yielded 10.5 g. pentahydroxy analog (V) of IV, m. 220-5°. V (10 g.) in 100 cc. hot EtOH cooled, diluted with 200 cc. water, and the filtered solution added portionwise to 50 cc. 3.3N FeCl<sub>3</sub> yielded 9 g. A (Me, H, HO) (VI), m. 178-80°; acetate, m. 152-3°; Me ether, m. 102-3°. VI (1 g.) treated at 0° with 6 cc. 5% H<sub>2</sub>SO<sub>4</sub> in Ac<sub>2</sub>O, the mixture allowed to stand 24 hrs. at room temperature, poured into 10 parts ice water, the air-dried product refrigerated 24 hrs. in 2-3 parts absolute EtOH, and the insol. residue (1.3 g.) dissolved in 25 parts boiling EtOH and slowly cooled yielded 90-130 mg. rearrangement product (VII), m. 213-15°, of VI; the alc. mother liquors from VII diluted with water and the product recrystd. from AcOH yielded 400-500 mg. 1,3,4,5,6(or 8)-pentaacetoxy-2,7-dimethyldibenzofuran (VIII), m. 165°; the first two AcOH mother liquors from VIII poured into cold water yielded 170-250 mg. 2,2',3',6'-tetraacetoxy-4,4'-ditolyl-3,6-quinone (IX), m. 156°. IX (140 mg.) in 1.4 cc. Ac<sub>2</sub>O treated with 300 mg. powdered Zn and 0.3 cc. pyridine, the mixture heated to boiling until decolorized, filtered, and the filtrate poured into water yielded 150 mg. 2,2',3,3',6,6'-hexaacetoxy-4,4'-ditolyl (X), m. 202-3°. VIII (270 mg.) refluxed 30 min. with 4 cc. N HCl-MeOH, the product dried over KOH, the residue (150 mg. m. 220-5°) dissolved in 2.5 cc. hot EtOH, and the solution cooled and treated first with 2.5 cc. water, then with 0.9 cc. 2.5N FeCl<sub>3</sub>, yielded 110 mg. 3-hydroxy-2,7-dimethyldibenzofurandiquinone (XI), m. 252-4° (corrected). Powdered XI (50 mg.) dissolved in 1.5 cc. 5% H<sub>2</sub>SO<sub>4</sub> in Ac<sub>2</sub>O, and

the mixture allowed to stand 48 hrs. at room temperature and poured into ice water yielded 3,5,6,8-tetraacetoxy-2,7-dimethyldibenzofuran-1,4-quinone (XII), m. 225-35° (decomposition). XII (300 mg.) in 0.5 cc. Ac<sub>2</sub>O containing 30 mg. anhydrous NaOAc treated with 70 mg. powdered Zn, the solution filtered hot,

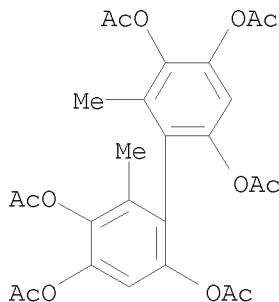
and the

combined filtrates added to cold water yielded 1,3,4,5,6,8-hexaacetoxy-2,7-dimethyldibenzofuran (XIII) (hexaacetate of anhydrodihydroxyleucophenicin), m. 255-6°. VI (50 mg.) in 0.5 cc. absolute EtOH refluxed 1 hr. with 0.2 cc. cyclopentadiene and the solution evaporated yielded dicyclopentadiene-2-

hydroxy-4,4'-ditoluquinone (XIV), m. 154°. B (or B') (MeO, H, H), m. 269° (corrected) (10 g.), added to 60 cc. 5% H<sub>2</sub>SO<sub>2</sub> in Ac<sub>2</sub>O at 0° and the mixture allowed to stand 3 hrs. at room temperature yielded 200 mg. 4,4'-dimethoxydiquinone, m. 271-2° (corrected). The filtrate poured into 600 cc. ice water yielded a small amount of 3,3',6,6'-tetraacetoxy- but mostly (7.1 g.) 2,3,3',6,6'-pentaacetoxy-4,4'-dimethoxydiphenyl (XV), m. 196-7°. XV (1.08 g.) in 9 cc. N HCl-MeOH refluxed 40 min. under CO<sub>2</sub> and the product distilled and finally dried over KOH yielded 630 mg. pentahydroxy analog (XVI) of XV, m. 194-7°. XVI with 5% H<sub>2</sub>SO<sub>4</sub> in Ac<sub>2</sub>O yielded XV, m. 196-7°.

ACCESSION NUMBER: 1957:43284 CAPLUS  
 DOCUMENT NUMBER: 51:43284  
 ORIGINAL REFERENCE NO.: 51:8062e-i,8063a-f  
 TITLE: Rearrangements of hydroxydiquinones. I. Preparation of 2-hydroxy-4,4'-dimethyl-3,3',6,6'-diquinone and of 2,3,3',6,6'-pentahydroxy-4,4'-diphenyl  
 AUTHOR(S): Posternak, Th.; Alcalay, W.; Huguenin, R.  
 CORPORATE SOURCE: Univ. Lausanne, Switz.  
 SOURCE: Helvetica Chimica Acta (1956), 39, 1556-63

CODEN: HCACAV; ISSN: 0018-019X

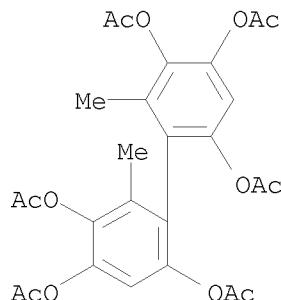
DOCUMENT TYPE: Journal  
LANGUAGE: FrenchIT 124202-23-9  
(Derived from data in the 6th Collective Formula Index (1957-1961))  
RN 124202-23-9 CAPLUS  
CN 2,2',4,4',5,5'-Biphenylhexol, 6,6'-dimethyl-, hexaacetate (6CI) (CA INDEX NAME)

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AB Diazotizing 625 mg. o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H in 2 cc. concentrated HCl with 375 mg. NaNO<sub>2</sub> in the min. amount of H<sub>2</sub>O at -5°, adding 1 g. 2-thiophenealdehyde phenylhydrazone and 1 g. NaOH in 35 cc. MeOH at 0°, filtering off the precipitate after 4 hrs., acidifying the filtrate with AcOH, and adding H<sub>2</sub>O give 805 mg. N-phenyl-N'-(2-carboxyphenyl)-C-(2-thienyl)formazan (I), dark red crystals, m. 181-2° (decomposition). Heating 140 mg. I in concentrated aqueous solution with 90 mg. NiSO<sub>4</sub> and NaOAc a short time on a water bath gives a

Ni complex, C<sub>18</sub>H<sub>12</sub>O<sub>2</sub>N<sub>4</sub>Sn, dark green microcrystals, not m. below 320°; Cu complex, C<sub>18</sub>H<sub>12</sub>O<sub>2</sub>N<sub>4</sub>SCu, deep violet microcrystals, m. 243-4° (decomposition).

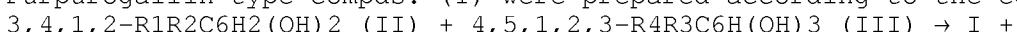
ACCESSION NUMBER: 1957:43283 CAPLUS  
 DOCUMENT NUMBER: 51:43283  
 ORIGINAL REFERENCE NO.: 51:8062c-e  
 TITLE: Formazyl complexes of the thiophene series  
 AUTHOR(S): Seyhan, Muvaaffak; Fernelius, W. Conrad  
 CORPORATE SOURCE: Pennsylvania State Univ., University Park  
 SOURCE: Chemische Berichte (1956), 89, 2482-3  
 CODEN: CHBEAM; ISSN: 0009-2940  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 124202-23-9  
(Derived from data in the 6th Collective Formula Index (1957-1961))  
 RN 124202-23-9 CAPLUS  
 CN 2,2',4,4',5,5'-Biphenylhexol, 6,6'-dimethyl-, hexaacetate (6CI) (CA INDEX NAME)



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GI For diagram(s), see printed CA Issue.

AB Purpurogallin type compds. (I) were prepared according to the equation:



CO<sub>2</sub>. By measuring the evolved CO<sub>2</sub>, the yield of I could be estimated A solution

of 20-30 cc. 3.5% KIO<sub>3</sub> was added at 2° to a solution of II and III (30 cc. of 40% EtOH solution) to prepare I. The effect of substituents in II on the formation of I is shown. The following expts. were conducted (R<sub>1</sub>, R<sub>2</sub>, R<sub>3</sub>, R<sub>4</sub>, g. II, g. III, mole ratio, % yield of gas, g. I formed, and m.p. I given): H, H, CO<sub>2</sub>H, H, 0.22, 0.38, 1:1, 72.2, 0.31, above 300°; H, H, CO<sub>2</sub>H, H, 0.44, 0.38, 2:1, 77.2, 0.49, above 300°; H, Cl, CO<sub>2</sub>H, H, 0.29, 0.38, 1:1, 40.3, 0.31, above 300°; H, PhCH<sub>2</sub>CH<sub>2</sub>, CO<sub>2</sub>H, H, 0.12, 0.1, 1:1, -, 0.14, 245°; H, PhCH<sub>2</sub>CO, CO<sub>2</sub>H, H, 0.2, 0.2, 1:1.2, -, -, -; H, O<sub>2</sub>N, CO<sub>2</sub>H, H, 0.3, 0.54, 1:1.5, 0, 0, -; MeO, H, CO<sub>2</sub>H, H, 0.32, 0.43, 1:1, 87, 0.56, above 300°; H, H, Pr, H, 0.22, 0.34, 1:1, 0, 0.45, C<sub>18</sub>H<sub>22</sub>O<sub>6</sub> (m. 178°); MeO, H, CO<sub>2</sub>H, Br, 0.42, 0.48, 1.5:1, 96, 0.43, (Br elimination), above 300°; H, H, CO<sub>2</sub>H, H, 0.22, 0.48, 1:1, 81, 0.4, (Br elimination), above 300°; H, H, CO<sub>2</sub>Me, H, 0.22, 0.37, 1:1, 61, 0.43, 214°.

ACCESSION NUMBER: 1957:12781 CAPLUS

DOCUMENT NUMBER: 51:12781

ORIGINAL REFERENCE NO.: 51:2712f-i

TITLE: Synthesis of the purpurogallin type compounds. II. On the effect of the substituents

AUTHOR(S): Murakami, Masuo; Suzuki, Kojiro

SOURCE: Memoirs of the Institute of Scientific and Industrial Research, Osaka University (1956), 13, 185-6

CODEN: MISIAW; ISSN: 0369-0369

DOCUMENT TYPE: Journal

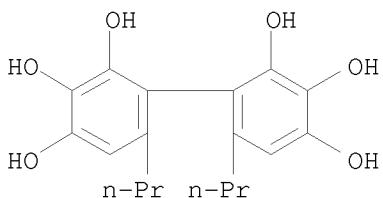
LANGUAGE: Unavailable

IT 111034-54-9

(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 111034-54-9 CAPLUS

CN 2,2',3,3',4,4'-Biphenylhexol, 6,6'-dipropyl- (6CI) (CA INDEX NAME)



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AB The following changes should be made in the abstract of this paper: C.A. 50, 12008g, I should be BzOH; 12009d, VI should be decahydronaphthalene; 12009 line 30, "chromatography or" should be deleted.

ACCESSION NUMBER: 1957:12780 CAPLUS

DOCUMENT NUMBER: 51:12780

ORIGINAL REFERENCE NO.: 51:2712e-f

TITLE: Raney nickel reductions. V. General method for the reduction of quinones to the corresponding hydrocarbon derivatives

AUTHOR(S): Desai, N. B.; Ramanathan, V.; Venkataraman, K.

CORPORATE SOURCE: Univ. Bombay

SOURCE: Journal of Scientific &amp; Industrial Research (1955), 14B, 330-4

CODEN: JSIRAC; ISSN: 0022-4456

DOCUMENT TYPE: Journal

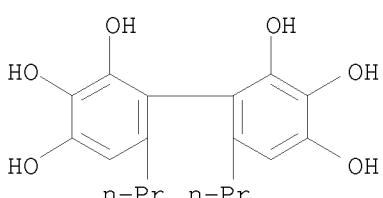
LANGUAGE: Unavailable

IT 111034-54-9

(Derived from data in the 6th Collective Formula Index (1957-1961))

RN 111034-54-9 CAPLUS

CN 2,2',3,3',4,4'-Biphenylhexol, 6,6'-dipropyl- (6CI) (CA INDEX NAME)



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AB cf. C.A. 49, 13283d. With HCl 2-methoxy-6-propyl-1,4-benzoquinone (I) formed 5,5'-dimethoxy-3,3'-dipropyl-2,2'-bi-p-benzoquinone (II) and 2,8-dihydroxy-3,7-dimethoxy-1,9-dipropylbenzofuran (III) in addition to the expected 2,3,5,1,4-C<sub>1</sub>Pr(MeO)C<sub>6</sub>H(OH)<sub>2</sub>. The relation between this reaction and the self-condensation of methoxy-1,4-benzoquinone (IIIa) is discussed. From results obtained by varying the reaction conditions and by condensing representative quinones with appropriate phenols, a mechanism for the self-condensation was deduced, but the naturally occurring biquinones phoenicin (3,3'-dihydroxy-5,5'-dimethyl-2,2'-bi-p-benzoquinone) (IV) and oosporein (the 6,6'-di-HO derivative of IV) (V) are probably not formed by an analogous process. 2,4-MeO(O<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>OH (9.5 g), 10 g. K<sub>2</sub>CO<sub>3</sub>, and 6 g. CH<sub>2</sub>:CHCH<sub>2</sub>Br boiled in 100 mL Me<sub>2</sub>CO, a solution of the product in Et<sub>2</sub>O washed with dilute aqueous NaOH, dried and evaporated yielded an oil which, crystallized from petr. ether (b. 40-60°) (hereafter referred to as petr. ether A),

gave 8 g. O-allyl-4-nitroguaiacol (VI), pale yellow prisms, m. 53°; VI (5 g.) rearranged in boiling quinoline (VII) during 30 min., the mixture diluted with Et<sub>2</sub>O, freed from VII by 10% H<sub>2</sub>SO<sub>4</sub>, the phenolic product extracted with 10% aqueous NaOH, and acidified with dilute HCl yielded 6-allyl-4-nitroguaiacol (VIII), yellowish prisms, m. 72° (from petr. ether A), which (4 g.) in 100 mL MeOH treated 0.5 h. with H and 2% Pd-C, the product isolated and mixed with a solution of 50 g. Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> in 500 mL H<sub>2</sub>O, the product steam distilled, the distillate extracted with Et<sub>2</sub>O,

the

extract evaporated, and the product crystallized gave 0.3 g.

2-methoxy-6-propyl-1,4-

benzoquinone (IX), yellow prisms, m. 78-9° (from petr. ether A),  $\lambda_{\text{maximum}}$  266  $\mu$  (log  $\epsilon$  4.25), readily soluble in common organic solvents, and gave a red color with aqueous NaOH or concentrated H<sub>2</sub>SO<sub>4</sub> [method (1)].

Method (2): 6 g. 6-allylguaiacol in 100 mL MeOH shaken with H and 2% Pd-C yielded after distillation 5 g. 6-propylguaiacol (X), b<sub>20</sub> 142°; 2.2 g. NaNO<sub>2</sub> in 6 mL H<sub>2</sub>O added to a solution of 6.3 g. 4-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H and 1.6 g. anhydrous Na<sub>2</sub>CO<sub>3</sub> in 30 mL H<sub>2</sub>O, the mixture poured on 3.5 g. ice and 6.5 mL concentrated HCl, 15 min. later 5 g. X in 30 mL 20% NaOH added, the resulting dye kept overnight and reduced at 80° with 10 g. SnCl<sub>2</sub> and 22 mL concentrated HCl, the crude aminoguaiacol oxidized with 80 g. Fe<sub>2</sub>(SO<sub>4</sub>)<sub>3</sub> in 500 mL H<sub>2</sub>O, and the product isolated by steam distillation gave a poor yield of

IX.

Method (3): 7 g. K<sub>2</sub>S<sub>2</sub>O<sub>8</sub> in 250 mL H<sub>2</sub>O added during 2 h. to a stirred solution of 5 g. X in 10% aqueous NaOH at 10°, the mixture kept 12 h., acidified to Congo red, filtered through cotton wool to remove tar, acidified to litmus, kept 1 h. at 100°, and extracted with Et<sub>2</sub>O, the extract evaporated, and the residue crystallized gave 1.5 g. 2-methoxy-6-propylhydroquinone (XI), m. 106° (from petr. ether (b. 80-100°) (hereafter called petr. ether C); oxidation of 6 g. XI in 30 mL 10% AcOH with 100 mL 2% aqueous CrO<sub>3</sub> at 0° during 0.5 h. gave an almost quant. yield of IX. 5,2-C<sub>1</sub>(MeO)C<sub>6</sub>H<sub>3</sub>OH (6 g.), 6 g. K<sub>2</sub>CO<sub>3</sub>, and 5.5 g. CH<sub>2</sub>:CHCH<sub>2</sub>Br in 100 mL Me<sub>2</sub>CO refluxed 4 h. on a steam bath, isolated in the usual way, and distilling gave 5 g. O-allyl-5-chloroguaiacol (XII), b<sub>20</sub> 142°. XII (4.5 g.) completely isomerized on boiling 1 h. with 4 g. Me<sub>2</sub>NPh, the reaction mixture diluted with Et<sub>2</sub>O, washed with dilute H<sub>2</sub>SO<sub>4</sub>, dried,

and evaporated left 3.7 g. 6-allyl-5-chloroguaiacol (XIII), b<sub>20</sub> 150° [benzoate, plates, m. 78° (from MeOH)]. XIII (8 g.) in 30 mL MeOH containing 2 g. 5% Pd-C absorbed 1 mol H in about 10 min., the filtered solution

evaporated, and the residue distilled furnished 7.5 g.

5-chloro-6-propylguaiacol

(XIV), b<sub>20</sub> 156° [benzoate, m. 100° (from dilute EtOH)]. XIV (4 g.) treated by method 2 above gave 2 g. 2-chloro-5-methoxy-3-propyl-1,4-benzoquinone (XV), greenish yellow prisms, m. 92° (from petr. ether A), which readily sublimed and formed a pink solution in alkali and a red one in concentrated H<sub>2</sub>SO<sub>4</sub>. XV (1 g.) suspended in 50 mL H<sub>2</sub>O and treated with SO<sub>2</sub> until no further change, the precipitate filtered off, dried, and crystallized

gave

0.8 g. of the corresponding hydroquinone (XVa), colorless prisms, m. 103-4°, which with CrO<sub>3</sub> in AcOH regenerated XV. The blue coupled product from 10 g. IIIa refluxed about 20 min. with 2 g. Zn dust in 200 mL 55% AcOH, 5 mL 2N HCl added, the hot solution filtered, and cooled deposited 7.2 g. [4,2,5-MeO(HO)C<sub>6</sub>H<sub>2</sub>]<sub>2</sub> (XVI), fawn prisms, m. 210° (decomposition). XVI (4 g.) sifted into 25 mL sirupy H<sub>3</sub>PO<sub>4</sub> at 180°, the solution cooled, diluted with an equal volume H<sub>2</sub>O, the mixture filtered, the solid washed, and crystallized gave 2,8-dihydroxy-3,7-dimethoxydibenzofuran

(XVII), colorless plates, m. 188° (from EtOH or C<sub>6</sub>H<sub>6</sub>-petr. ether b. 60-80°) (hereafter referred to as petr. ether B),  $\lambda_{\text{maximum}}$  316 m $\mu$  (log  $\epsilon$  4.4), which produced an intense blue concentrated H<sub>2</sub>SO<sub>4</sub> reaction [diacetate, m. 200° (from dilute EtOH)]. XVII (2 g.), 2 g. K<sub>2</sub>CO<sub>3</sub>, and 1.6 mL CH<sub>2</sub>:CHCH<sub>2</sub>Br in 200 mL Me<sub>2</sub>CO refluxed 6 h. and recrystd. gave 1.5 g. 2,8-diallyloxy compound (XVIII), m. 112-13°, insol. in alkalies and gave a deep blue H<sub>2</sub>SO<sub>4</sub> reaction. XVIII (5 g.), 40 mL Et<sub>2</sub>NPh, and 5 mL Ac<sub>2</sub>O heated (oil-bath at 180-90°) 5 h. in a N atmospheric, the mixture cooled, diluted with 200 mL Et<sub>2</sub>O, filtered, freed from

Et<sub>2</sub>NPh by HCl, and the filtrate evaporated left a yellow gum which solidified on trituration with MeOH; the solid appeared to be a complex mixture from which 2 compds. were isolated by fractional crystallization from EtOH and EtOAc alternately, the less soluble substance forming 0.5 g. prisms, m. 220° (from EtOH), while the more soluble fraction purified from EtOH gave 1.8 g. 2,8-diacetoxy-1,9-diallyl-3,7-dimethoxydibenzofuran (XIX), m. 166°, giving a blue H<sub>2</sub>SO<sub>4</sub> reaction; hydrogenated over 0.5 g. 2% Pd-C in 200 mL EtOH, 0.5 g. XIX absorbed 2 mol H in 5 min. and gave 0.5 g. of the diacetate of III, m. 169° (from EtOH), giving a blue H<sub>2</sub>SO<sub>4</sub> reaction. HCl led 1 h. into 2 g. IX in 50 mL CHCl<sub>3</sub>, the solvent removed in vacuo, the residue triturated with a little MeOH, and fractionally crystallized from MeOH gave II, which repeatedly purified from MeOH yielded 0.6 g. yellow prisms, m. 172°,  $\lambda_{\text{maximum}}$  272 m $\mu$  (log  $\epsilon$  4.3), becoming orange with H<sub>2</sub>SO<sub>4</sub> and pink with aqueous NaOH; recrystn. of the more soluble fraction from dilute MeOH gave 0.7 g. III, plates,  $\lambda_{\text{maximum}}$  227, 312 m $\mu$  (log  $\epsilon$  4.6, 4.45), soluble in aqueous NaOH and insol. in aqueous Na<sub>2</sub>CO<sub>3</sub>, and giving a deep blue H<sub>2</sub>SO<sub>4</sub> reaction; when the CHCl<sub>3</sub> was replaced by Et<sub>2</sub>O in this experiment, the crude solid obtained gave 3 fractions from MeOH: (a) 0.4 g. II, (b) a middle fraction of 0.5 g. III, and (c) the most soluble fraction, which on dilution with H<sub>2</sub>O gave 0.6 g. XVa. III (0.5 g.)

in 15 mL boiling EtOH treated 30 min. with 1 g. FeCl<sub>3</sub>, the solution diluted with Et<sub>2</sub>O, washed with H<sub>2</sub>O, dried and evaporated left 0.25 g. II. II (0.5 g.) suspended in 20 mL H<sub>2</sub>O containing 5 mL MeOH reduced 20 min. by SO<sub>2</sub>, the precipitate

filtered, washed with H<sub>2</sub>O, and crystallized gave 0.45 g. [2,4,3,6-Pr(MeO)(HO)C<sub>6</sub>H]<sub>2</sub>, prisms, m. 190° (from dilute MeOH), easily oxidized in air and gave a red solution in aqueous NaOH and an emerald-green H<sub>2</sub>SO<sub>4</sub> reaction [tetraacetate, m. 160° (from dilute EtOH)],  $\lambda_{\text{maximum}}$  280 m $\mu$  (log  $\epsilon$  3.6). III sublimed from an intimate mixture of 0.2 g. biquinol and 0.5 g. P<sub>2</sub>O<sub>5</sub> at 190°/0.05 mm. was formed in the same yield when the biquinol was treated with HCl 1 h. at 0°, and identified by comparison with authentic material. Methoxy-p-benzoquinone (1 g.) in 25 mL ice-cold CHCl<sub>3</sub> treated 5 min. with a stream of HCl, the blue precipitate collected and identified with the product prepared according to Erdtman (C.A. 28, 1337.2), the residue left on evaporation

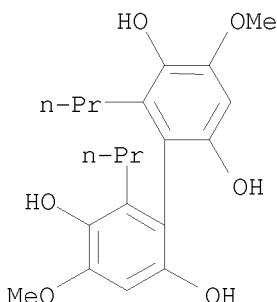
of the CHCl<sub>3</sub> liquor extracted with boiling petr. ether A, the exts. cooled, filtered, concentrated, chilled, and recrystd. gave a small amount of 2-chloro-5-methoxyhydroquinone, m. 128°. A slow stream of HCl led into a solution of 50 mg. IX and 50 mg. XI in 5 mL CHCl<sub>3</sub> for 1 h., the solution

evaporated, the residue extracted with boiling petr. ether B, the exts. combined,

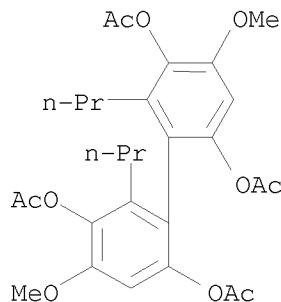
concentrated, and cooled gave 70 mg. III, m. 152° (from MeOH). p-Benzoquinone (1.1 g.) in 30 mL AcOH containing 0.9 g. C-methylphloroacetophenone vigorously stirred 24 h., the solid isolated, air dried, and washed with cold MeOH left 0.8 g. 2,5-bis(3-acetyl-2,4,6-trihydroxy-5-methylphenyl)-1,4-benzoquinone (XX), bright yellow prisms, m. 245° (decomposition) (blackening at 190°), insol. in EtOH,

a dioxane, CHCl<sub>3</sub>, and EtOAc, decomposed in warm AcOH; in aqueous Na<sub>2</sub>CO<sub>3</sub>, XX gave green, in 2N NaOH a red, and in concentrated H<sub>2</sub>SO<sub>4</sub> an inky blue color. The MeOH washings of XX concentrated gave 0.2 g. quinhydrone, green-black, m. 171° (decomposition). A stirred solution of 0.9 g. C-methylphloroacetophenone and 0.55 g. p-benzoquinone in 10 mL. AcOH held 1 h. at 60°, next day the pink solid filtered, washed with AcOH and then with Et<sub>2</sub>O, and air dried yielded 0.85 g. 2,5-bis(3-acetyl-2,4,6-trihydroxy-5-methylphenyl)quinol, m. 270° (decomposition), soluble in EtOH and gave a transient green-brown reaction with Fe<sup>+++</sup>, a brilliant red solution in 2N NaOH, and a rose-red reaction with H<sub>2</sub>SO<sub>4</sub>. A mixture of 1.3 g. anhydrous 1,3,5-(HO)<sub>3</sub>C<sub>6</sub>H<sub>3</sub> and 1.7 g. 2,6-dimethoxy-1,4-benzoquinone moistened with AcOH and warmed 15 min. later gave a solid which separated on cooling, but the mother liquor yielded the purer product on recrystn. from H<sub>2</sub>O, 2',3,4',6,6'-pentahydroxy-2,4-dimethoxybiphenyl, m. 250° (decomposition), gave a neg. reaction with Fe<sup>+++</sup>, and a green, then a purple, solution with concentrated H<sub>2</sub>SO<sub>4</sub>.

ACCESSION NUMBER: 1955:84173 CAPLUS  
 DOCUMENT NUMBER: 49:84173  
 ORIGINAL REFERENCE NO.: 49:15844c-i,15845a-i,15846a-c  
 TITLE: Chemistry of fungi. XXIV. Formation of biquinones  
 AUTHOR(S): Dean, F. M.; Osman, A. M.; Robertson, Alexander  
 CORPORATE SOURCE: Univ. Liverpool, UK  
 SOURCE: Journal of the Chemical Society (1955) 11-17  
 CODEN: JCSOA9; ISSN: 0368-1769  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 OTHER SOURCE(S): CASREACT 49:84173  
 IT 854243-77-9P, 2,2',5,5'-Biphenyltetrol, 4,4'-dimethoxy-6,6'-dipropyl- 860703-03-3P, 2,2',5,5'-Biphenyltetrol, 4,4'-dimethoxy-6,6'-dipropyl-, tetraacetate  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 854243-77-9 CAPLUS  
 CN 2,2',5,5'-Biphenyltetrol, 4,4'-dimethoxy-6,6'-dipropyl- (5CI) (CA INDEX NAME)



RN 860703-03-3 CAPLUS  
 CN 2,2',5,5'-Biphenyltetrol, 4,4'-dimethoxy-6,6'-dipropyl-, tetraacetate (5CI) (CA INDEX NAME)



L18 ANSWER 82 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB The growth-inhibitory action of the following compds. was tested on *M. pyogenes* var. *aureus*, *E. coli communior*, and *B. subtilis*, in the order named, and the effective dilns. (10,000 dilution = 1) were: (2-HOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>O, 1, 1, and <1; 2-HOC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>OH-4, 1, 1, and <1; (4-HOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>O, 1, 1, and 1; 2-HOC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>Me-2, 2, 2, and 1; 2-HOC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>Me-4, 4, 1, and 1; 3-MeC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>3</sub>(OH)<sub>2</sub>-2, 5, 4, 1, and 2; 2,5-(HO)2C<sub>6</sub>H<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>Me-4, 2, 1, and 2; 2,5-Me<sub>2</sub>C<sub>6</sub>H<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>OH-4, 8, <1, and 2; 2,4,6-Me(HO)2C<sub>6</sub>H<sub>2</sub>OC<sub>6</sub>H<sub>4</sub>Me-4, 1, <1, and <1; 2,5,3-Me<sub>2</sub>(HO)C<sub>6</sub>H<sub>2</sub>OPh, 2, 1, and 8; 2,5,3-Me<sub>2</sub>(HO)C<sub>6</sub>H<sub>2</sub>OC<sub>6</sub>H<sub>4</sub>OH-2, 1, 1, and 1; 2,5,4,6-Me<sub>2</sub>(HO)2C<sub>6</sub>HOC<sub>6</sub>H<sub>4</sub>Me-2, 2, 1, and 2; 2,5,4,6-Me<sub>2</sub>(HO)2C<sub>6</sub>HOC<sub>6</sub>H<sub>4</sub>Me-4, 1, <1, and 1; 2-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>OPh, 1, 1, and <1; 3-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>OPh, all <1; 2-HOC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-2, all <1; 3-HOC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-3, 1, 1, and <1; 3-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>OH-4, all <1; 3-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>OMe-4, all <1; PhOC<sub>6</sub>H<sub>3</sub>(OH)CO<sub>2</sub>H-3, 5, all <1; 2-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-4, all <1; 3,5-HO(HO<sub>2</sub>C)C<sub>6</sub>H<sub>3</sub>OC<sub>6</sub>H<sub>4</sub>CO<sub>2</sub>H-4, all <1; 4-C<sub>1</sub>C<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>OMe-4, all 1; 4-C<sub>1</sub>C<sub>6</sub>H<sub>4</sub>OC<sub>6</sub>H<sub>4</sub>OH-4, all 1; (2-HOC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>, all 1; [2,4-(HO)2C<sub>6</sub>H<sub>3</sub>]<sub>2</sub>, 1, 1, and <1; [2,4,6-Me(MeO)2C<sub>6</sub>H<sub>2</sub>]<sub>2</sub>, all <1; [2,4,6-Me(HO)2C<sub>6</sub>H<sub>2</sub>]<sub>2</sub>, 2, 1, and <1; [2,4,5-(HO)2RC<sub>6</sub>H<sub>2</sub>]<sub>2</sub>, R = cyclohexyl, 1, <1, and 1; (4-HO<sub>2</sub>CC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>, all <1; [2,5,4,6-Me<sub>2</sub>(HO)2C<sub>6</sub>H]<sub>2</sub>, all <1; 2,7-dimethoxy-4,5-dimethylidiphenylene oxide, all <8; 2,7-dihydroxy-4,5-dimethylidiphenylene oxide, <8, <8, and 16; 2,7-dihydroxydiphenylene oxide 4,5-dicarboxylic acid, all <8; the Me ester of the latter, all <8; divaricatic acid, 2, <1, and 16; atranorin, <1, 1, and <1; sekikaic acid, 1, <1, and 4; sphaerophorin, 1, <1, and 16; gyophoric acid, all <8; anziaic acid, all 8; microphylllic acid, all 8; Me lecanorate, all <1; protocetraric acid, all 8;  $\alpha$ -collatolic acid, all 8;  $\beta$ -collatolic acid, <8, 8, and <8; collatolon, 16, 8, and <8; stictinic acid, <8, 8, and <8; psoromic acid, all <1; usnolic acid, all <1; Et usnolate, 2, 4, and 4; usnetol, all <1; rangiformic acid, 8, 8, and <8; 1-protolichesterinic acid, 8, <1 and 1; agaricinic acid, 1, 1, and <1; sphaerophorol, 8, 1, and 8.

ACCESSION NUMBER: 1954:1175 CAPLUS

DOCUMENT NUMBER: 48:1175

ORIGINAL REFERENCE NO.: 48:229f-i,230a

TITLE: Antibacterial activity of some organic compounds in vitro. II. Antibacterial activity of some organic compounds on *Micrococcus pyogenes* var. *aureus*, *Escherichia coli communior*, and *Bacillus subtilis*  
 Fujikawa, Fukuijro; Hitosa, Yuhei; Yamaoka, Michiyo;  
 Fujiwara, Yoshiko; Nakazawa, Shozo; Omatsu, Tokugoro;  
 Toyoda, Tadaaki

SOURCE: *Yakugaku Zasshi* (1953), 73, 135-8

CODEN: YKKZAJ; ISSN: 0031-6903

DOCUMENT TYPE: Journal

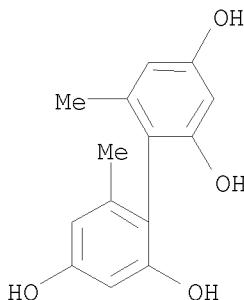
LANGUAGE: Unavailable

10584234

IT 4946-96-7, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
(antibacterial effects of)

RN 4946-96-7 CAPLUS

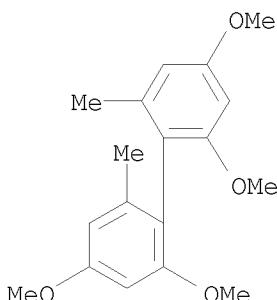
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



IT 20261-64-7, o,o'-Bitolyl, 4,4',6,6'-tetramethoxy-  
(as bactericide)

RN 20261-64-7 CAPLUS

CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl- (CA INDEX NAME)



L18 ANSWER 83 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB cf. CA. 47, 4513c. Soy sauce with 0.01% 6-chlorothymol, p-Me<sub>2</sub>EtCC<sub>6</sub>H<sub>4</sub>OH, 2,1-HOC<sub>10</sub>H<sub>6</sub>CHO, 3,7-dihydroxy-19-, dimethyldibenzofuran, phenothiazine, 2-methyl-1,4-naphthoquinone, and 2-ethyl-1,4-naphthoquinone prevented the growth of mold for 61 days.

ACCESSION NUMBER: 1953:59919 CAPLUS

DOCUMENT NUMBER: 47:59919

ORIGINAL REFERENCE NO.: 47:10172e-f

TITLE: Antiseptics for foods. LV

AUTHOR(S): Fujikawa, Fukuijro; Tokuoka, Akimasa; Kometani, Eishi; Matsubara, Shoji

CORPORATE SOURCE: Kyoto Coll. Pharm.

SOURCE: Yakugaku Zasshi (1953), 73, 688-90

CODEN: YKKZAJ; ISSN: 0031-6903

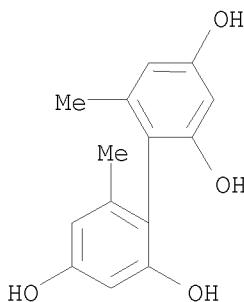
DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

IT 4946-96-7, 4,4'-Biorcinol  
(in soy-sauce preservation)

RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



L18 ANSWER 84 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB cf. C.A. 46, 4052b. Growth inhibition of *Mycobacterium tuberculosis* in vitro by the following compds. was tested: phenanthrenequinone (I) and its 9,10-[:NNHC(:NH)NH<sub>2</sub>.HNO<sub>3</sub>]<sub>2</sub>, thymoquinone (II), its 5-[:NNHC(:NH)NH<sub>2</sub>.HNO<sub>3</sub>] (III) and 2,5-[:NNHC(:NH)NH<sub>2</sub>.HNO<sub>3</sub>]<sub>2</sub>, toluquinone and its mono- and bis-aminoguanylhydrazone-HNO<sub>3</sub>, p-benzoquinone (IV) and its monoaminoguanylhydrazone (V) and its mono- and bis-aminoguanylhydrazone-HNO<sub>3</sub>, 1,4-naphthoquinone (VI), its mono- (VII) and bisaminoguanylhydrazone-HNO<sub>3</sub>, 2-methyl-1,4-naphthoquinone (VIII), its mono- and bisamino-guanylhydrazone-HNO<sub>3</sub>, anthraquinone, 2-methylanthraquinone (IX), 2-methyl-5-methoxy-1,4-benzoquinone, 2,7-dihydroxy-4,5-dicarboxydiphenylene dioxide, 2,7-dihydroxy-1,4,5,8-tetramethyldiphenylene dioxide, 2,7-dihydroxy-4,5-dimethyldiphenylene dioxide, 6,6'-dimethyl-2,2',4,4'-tetra-hydroxybiphenyl, and p-H<sub>2</sub>N<sub>2</sub>SC<sub>6</sub>H<sub>4</sub>CH:NNHCSNH<sub>2</sub> (X); 2,4-HO(H<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>CO<sub>2</sub>Na (XI) is used as a control. Compds. I to XI, inclusive, inhibited the growth at the dilution of 1: 160,000; II, VI, VIII and XI were effective at the dilution of 1:320,000. Of 42 lichen compds. tested, none showed remarkable growth inhibition except that Me evernate was effective at 1:80,000, while atranorin, Me and Pr lecanaorate, and iso-Bu and Am evernate were effective at 1:40,000. 2,4-HO(H<sub>2</sub>N)C<sub>5</sub>H<sub>3</sub>CO<sub>2</sub>Ph was effective at 1:600,000-1:640,000.

ACCESSION NUMBER: 1952:61282 CAPLUS

DOCUMENT NUMBER: 46:61282

ORIGINAL REFERENCE NO.: 46:10286g-i,10287a

TITLE: Effect of some compounds on the tubercle bacilli in vitro. IV

AUTHOR(S): Naito, Masakazu; Shihoda, Akira; Ohta, Masahisa; Fujikawa, Fukuro; Nakajima, Kunio; Fujii, Hiroshi; Tokuoka, Akimasa; Hitosa, Yuhei

SOURCE: Yakugaku Zasshi (1952), 72, 1047-50

CODEN: YKKZAJ; ISSN: 0031-6903

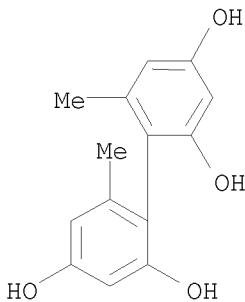
DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

IT 4946-96-7, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
(effect on tubercle bacilli)

RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



L18 ANSWER 85 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB Concentration of the Et<sub>2</sub>O extract of 1500 g. of a mixture of Cladonia species yielded,

successively, 1.5 g. squamatic acid, 2 g. barbat(in)ic acid, and 1.7 g. didymic acid (I). I, C<sub>22</sub>H<sub>26</sub>O<sub>5</sub>, recrystd. from petr. ether, m. 172-3° (decomposition), develops colors as follows: FeCl<sub>3</sub>, blue; CaCl<sub>2</sub> on crystals moist with EtOH, blue-green; concentrated H<sub>2</sub>SO<sub>4</sub>, yellow to green on warming. It is readily soluble in aqueous NaOH, EtOH, Et<sub>2</sub>O, and Me<sub>2</sub>CO, difficultly soluble in aqueous Na<sub>2</sub>CO<sub>3</sub> or NaHCO<sub>3</sub>, AcOH, C<sub>6</sub>H<sub>6</sub>, or petr. ether. With Ac<sub>2</sub>O and C<sub>5</sub>H<sub>5</sub>N, it yields I acetate, colorless needles, m. 116°. With CH<sub>2</sub>N<sub>2</sub> in Et<sub>2</sub>O, it gives colorless prisms, m. 109°. I (100 mg.), melted at 200° and vacuum-distilled at 0.015 mm. Hg and 210-50°, gave 50 mg. decarboxydidymic acid (II), m. 81-2° (petr. ether), gives no color with FeCl<sub>3</sub> and a blue-green color with CaCl<sub>2</sub>-EtOH, is soluble in most organic solvents. II (47 mg.), refluxed 2 h. with 2 mL. HI and 1 mL. AcOH, the solution poured into ice H<sub>2</sub>O, and the precipitate filtered and recrystd. from petr. ether-C<sub>6</sub>H<sub>6</sub>, gave 10 mg. decarboxynordidymic acid (III), m. 120°. III (20 mg.) kept overnight in 0.5 mL. C<sub>5</sub>H<sub>5</sub>N and 1 mL. Ac<sub>2</sub>O, precipitated in H<sub>2</sub>O, and recrystd. from dilute aqueous EtOH, colorless needles, m. 60-1°, soluble in C<sub>6</sub>H<sub>6</sub>, EtOH, and petr. ether. I (200 mg.) was added in portions to 6 g. KOH, 0.4 g. Zn dust, and 4 drops H<sub>2</sub>O, the temperature raised from 160 to 250° in 15 min., held 10 min. at 250-70° and 5 min. at 270-310°, the melt dissolved in H<sub>2</sub>O, acidified with HCl, extracted with Et<sub>2</sub>O, the Et<sub>2</sub>O extract

shaken with aqueous Na<sub>2</sub>CO<sub>3</sub>, taken to dryness, and the residue recrystd. from H<sub>2</sub>O, giving 10 mg. C<sub>20</sub>H<sub>26</sub>O<sub>4</sub>, m. 155-6°, soluble in aqueous NaOH (red solution), EtOH, Et<sub>2</sub>O, and Me<sub>2</sub>CO, less soluble in hot H<sub>2</sub>O and C<sub>6</sub>H<sub>6</sub>. 3,5-(MeO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>Pr (IV) (1.5 g.) (C.A. 30, 6351.9) and 2.1 g. iodine in 50 mL. Et<sub>2</sub>O, treated with 1.5 g. HgO, shaken 7 h. for complete decolorization, filtered, washed with NaHSO<sub>3</sub>, KI, and KOH solns., and evaporated gave 0.9 g. 2,3,5-I(MeO)<sub>2</sub>C<sub>6</sub>H<sub>2</sub>Pr (V), oil, b<sub>8</sub> 150-60°. V (1 g.) and 2.5 g. Cu powder, heated 5 h. at 210-20° in a sealed tube, extracted with hot Me<sub>2</sub>CO, and the Me<sub>2</sub>CO-free residue distilled, gave 0.2 g. IV, b<sub>4</sub> 140-60°, and 0.1 g. 2,2'-dipropyl-4,4',6,6'-tetramethoxybiphenyl (VI), b<sub>0</sub> 0.06-0.08 200-10°. VI (0.1 g.) was demethylated with HI to 2,2'-dipropyl-4,4',6,6'-tetrahydroxybiphenyl, easily soluble in EtOH, gives no color with FeCl<sub>3</sub> and a fugitive violet-red color with CaCl<sub>2</sub>-EtOH. 2,2'-Dimethyl-4,4',6,6'-tetramethoxybiphenyl (VII) (8 g.), heated 6 h. on an oil bath with 58 mL. HI and a little red P, gave 2 g. 4,5-dimethyl-2,7-dihydroxydibenzofuran (VIII) and 4.5 g. 2,2'-dimethyl-4,4',6,6'-tetrahydroxybiphenyl, yellow leaflets from PhNO<sub>2</sub>, m. 232-3°. VII (4 g.) heated 4 h. on an oil bath with 75 mL. HI gave only VIII, colorless leaflets, m. 243°, soluble in Et<sub>2</sub>O and Me<sub>2</sub>CO, insol. in H<sub>2</sub>O. VIII (3.5 g.), refluxed 5 h. with 10 mL. Me<sub>2</sub>SO<sub>4</sub> in

50 mL. Me<sub>2</sub>CO and 20 g. K<sub>2</sub>CO<sub>3</sub>, gave 2.6 g. 4,5-dimethyl-2,7-dimethoxydibenzofuran (IX), colorless leaflets, m. 157°, gives no color with FeCl<sub>3</sub> and CaCl<sub>2</sub>. IX (0.1 g.) in 10 mL. C<sub>5</sub>H<sub>5</sub>N, treated 6 h. with 0.25 g. KMnO<sub>4</sub> in 10 mL. H<sub>2</sub>O on a boiling water bath, gave 0.05 g. 5-methyl-2,7-dimethoxy-4-dibenzofurancarboxylic acid, colorless needles, m. 181°, easily soluble in EtOH (blue fluorescence). IX (0.3 g.) in 10 mL. C<sub>5</sub>H<sub>5</sub>N, treated 15 h. with 3 g. KMnO<sub>4</sub> in 75 mL. H<sub>2</sub>O on a boiling water bath, gave 0.07 g. 2,7-dimethoxy-4,5-dibenzofurandicarboxylic acid (X), m. 321-2° (decomposition) (from p-dioxane), readily soluble in EtOH, less soluble in Et<sub>2</sub>O, shows intense blue fluorescence. X with CH<sub>2</sub>N<sub>2</sub> gave X di-Me ester, yellowish prisms, m. 188.5-9.5° (from EtOH), readily soluble in Et<sub>2</sub>O, shows blue fluorescence. II (0.11 g.), refluxed 3 h. in 40 mL. Me<sub>2</sub>CO with 4 g. K<sub>2</sub>CO<sub>3</sub> and 2 mL. Me<sub>2</sub>SO<sub>4</sub>, gave decarboxydidymic acid Me ether (XI), m. 31°. XI treated 13 h. in C<sub>5</sub>H<sub>5</sub>N on a water bath with aqueous KMnO<sub>4</sub> gave 0.02 g. yellow needles, m. 323° (decomposition) (from p-dioxane), mixed m.p. with authentic X, 322° (decomposition). The mixed m.ps. of X di-Me esters was also not depressed. I Me ether Me ester, m. 109° (0.1 g.), in 5 mL. C<sub>5</sub>H<sub>5</sub>N, refluxed 5 h. with 0.8 g. KMnO<sub>4</sub> in 20 mL. H<sub>2</sub>O, gave 0.02 g. yellow needles, m. 136° (from dilute p-dioxane) of 5-propyl-2,7-dimethoxy-3,4-dibenzofurandicarboxylic acid 3-mono-Me ester (XII), readily soluble in EtOH, Me<sub>2</sub>CO, Et<sub>2</sub>O, and p-dioxane, less soluble in petr. ether, shows no fluorescence. Saponification of XII and recrystn. of the product from petr. ether-p-dioxane gave the free dicarboxylic acid, m. 209-10° (decomposition), readily soluble in p-dioxane and EtOH, difficultly soluble in petr. ether and H<sub>2</sub>O. XII and CH<sub>2</sub>N<sub>2</sub> gave di-Me ester, yellow prisms, m. 130-1° (from petr. ether). Didymic acid is 4-amyl-5-propyl-2-hydroxy-7-methoxy-3-dibenzofurancarboxylic acid.

ACCESSION NUMBER: 1951:41441 CAPLUS

DOCUMENT NUMBER: 45:41441

ORIGINAL REFERENCE NO.: 45:7100d-i, 7101a-d

TITLE: Didymic acid, a new kind of lichen substance

AUTHOR(S): Shibata, Shoji

CORPORATE SOURCE: Imperial Univ., Tokyo

SOURCE: Acta Phytochim. (Japan) (1944), 14, 9-38

DOCUMENT TYPE: Journal

LANGUAGE: German

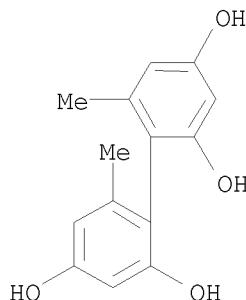
IT 4946-96-7P, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
20261-64-7P, o,o'-Bitolyl, 4,4',6,6'-tetramethoxy-  
104307-43-9P, Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dipropyl-  
854243-85-9P, 2,2',4,4'-Biphenyltetrol, 6,6'-dipropyl-

RL: PREP (Preparation)

(preparation of)

RN 4946-96-7 CAPLUS

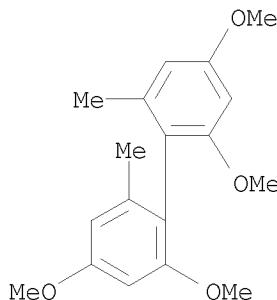
CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



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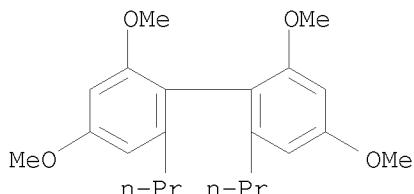
RN 20261-64-7 CAPLUS

CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dimethyl- (CA INDEX NAME)



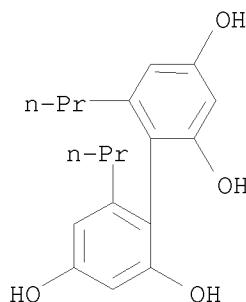
RN 104307-43-9 CAPLUS

CN 1,1'-Biphenyl, 2,2',4,4'-tetramethoxy-6,6'-dipropyl- (CA INDEX NAME)



RN 854243-85-9 CAPLUS

CN 2,2',4,4'-Biphenyltetrol, 6,6'-dipropyl- (5CI) (CA INDEX NAME)



L18 ANSWER 86 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB Antibacterial effects of didymic acid and strepsilin of the dibenzofuran group of lichen substances and their derivs. were examined. The antibacterial power of didymic acid is controlled by its dibenzofuran ring, its OH group, and the number of C atoms in its alkyl group. The strongest antibacterial power in lichen substances and their derivs. was shown by decarboxynordidymic acid (I). The highest dilns. inhibiting growth of *M. tuberculosis* (avian type) and *Staph. aureus*, resp., were: strepsilin < 1:10,000, < 1:5,000; didymic acid 1:40,000, 1:80,000; I 1:320,000, 1:640,000; diacetate of I -, < 1:5,000; 1,9-dimethyl-3,7-dihydroxydibenzofuran 1:80,000, 1:80,000; 1-methyl-3,7-dihydroxydibenzofuran -, 1:40,000; 3,7-dihydroxydibenzofuran 1:10,000,

1:5,000; 1,4,6,9-tetramethyl-3,7-dihydroxydibenzofuran <1:10,000,  
 <1:5,000; dibenzofuran -, < 1:5,000; 1,9-dimethyl-3,7-  
 dimethoxydibenzofuran -, < 1:5,000; 6,6'-dimethyl-2,2',4,4'-  
 tetrahydroxybiphenyl -, 1:5,000; orcinol -, < 1:5,000; olivetol 1:10,000,  
 1:10,000; sphaerophorol 1:40,000, 1:40,000.

ACCESSION NUMBER: 1951:39034 CAPLUS

DOCUMENT NUMBER: 45:39034

ORIGINAL REFERENCE NO.: 45:6692b-d

TITLE: Antibacterial effects of lichen substances. II.  
 Antibacterial effects of didymic acid and its related  
 compounds

AUTHOR(S): Shibata, Shoji; Miura, Yoshiaki; Sugimura, Hisako;  
 Toyoizumi, Yuri

CORPORATE SOURCE: Univ. Tokyo

SOURCE: Yakugaku Zasshi (1948), 68, 303-5

CODEN: YKKZAJ; ISSN: 0031-6903

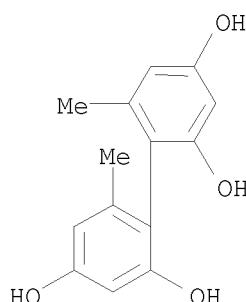
DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

IT 4946-96-7, 2,2',4,4'-Biphenyltetrol, 6,6'-dimethyl-  
 (antibacterial effects of)

RN 4946-96-7 CAPLUS

CN [1,1'-Biphenyl]-2,2',4,4'-tetrol, 6,6'-dimethyl- (CA INDEX NAME)



L18 ANSWER 87 OF 87 CAPLUS COPYRIGHT 2008 ACS on STN

AB cf. C. A. 10, 2875. From 20 g. urushiol (A) in an equal amount of absolute alc., 1.5 g. Na in 30 cc. alc. and 7.3 g. Me<sub>2</sub>SO<sub>4</sub> heated 1 hr. on the H<sub>2</sub>O bath, freed from the alc. by distillation, treated with H<sub>2</sub>O, extracted with Et<sub>2</sub>O,

dried with Na<sub>2</sub>SO<sub>4</sub> and distilled under about 0.2 mm. was obtained about 12 g. oil, b. about 210° (260 g. total yield from 370 g. A); 250 g. of this on repeated fractionation gave 4 fractions (about 208 g.) b0.15 172-200° (chiefly 183-8°), d<sub>425</sub> 0.9515-0.9606, Me (as MeO by the Zeisel method) 3.78, consisting largely of monomethylurushiol (B); in Et<sub>2</sub>O with H and Pt this gives monomethylhydrourushiol (C), needles from MeOH, m. 44.5-5.0°, gives with FeCl<sub>3</sub> in alc. a greenish blue color, in H<sub>2</sub>O a yellowish brown precipitate gradually becoming red-brown. C can also

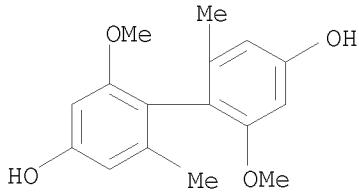
be

obtained in 1.5-g. yield from 3 g. dimethylhydrourushiol (D) boiled 5 hrs. with 13 cc. HI (d. 1.7); only with boiling HI of d. 1.98 or by heating 2 hrs. at 180° with HBr (d. 1.78) could complete demethylation be effected. Acetate of B, leaflets from dilute MeOH, m. 45.5-6.5°. 2,3-HO(MeO)C<sub>6</sub>H<sub>3</sub>Me (E) (2 g.) in 40 cc. of cold 88% alc. treated with 4.8 g. FeCl<sub>3</sub> in 40 cc. H<sub>2</sub>O, diluted after 1 hr. with H<sub>2</sub>O to 600 cc. and allowed to stand overnight in the ice chest gave 1.5 g. 3,3'-dimethyl-5,5'-dimethoxy-4,4'-diphenquinone (F), [O:C<sub>6</sub>H<sub>2</sub>Me(OMe) = ]2,

dark violet needles from absolute alc., m. 202-3°, requires 1 mol. SnCl<sub>2</sub> when titrated to complete decolorization in much almost boiling alc. in a CO<sub>2</sub> atmospheric; 2 g. suspended in 100 g. AcOH and treated with 2 g. Zn dust in small portions gives 1.9 g. of the quinol, colorless crystals from AcOH, m. 188.5-9.5°, reppts. the quinone from alc. with FeCl<sub>3</sub>, mol. weight in boiling Me<sub>2</sub>CO 264-70; 1 g. heated 3 hrs. at 150° with 5 cc. HBr (d. 1.48) yields, 3,3'-dimethyl-4,4',5,5'-tetrahydroxydiphenyl, crystals from AcOEt, darkens 220°, m. 230-1° (decomposition) gives with FeCl<sub>3</sub> in alc. a blue color changing to violet-black, in H<sub>2</sub>O a black precipitate; tetraacetate, needles, m. 193.5-4.5°. 3,3'-Dimethyl-4,4',5,5'-tetramethoxydiphenyl (G), from 1.5 g. of the quinol in 2.5 g. alc. heated 5 hrs. at 120° with 0.3 g. Na in 4 cc. alc. and 2.5 g. MeI, leaves from dilute alc., m. 102-3°. 2,3-(HO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>Me (H) (2 g.) in 250 cc. cold H<sub>2</sub>O treated in the course of 1 hr. with 5.25 g. FeCl<sub>3</sub> in 100 cc. H<sub>2</sub>O and stirred 20 min. longer gives 1.6 g. of a substance, (C<sub>12</sub>H<sub>11</sub>O<sub>4</sub>)<sub>2</sub>Fe, as a blue-black precipitate indifferent towards NaOAc, soluble in alkalies with dark green color, easily reduced in AcOH with Zn dust, the colorless solution, on evaporation in vacuo in CO<sub>2</sub> and boiling 3 hrs. with Ac<sub>2</sub>O giving G; the compound is assigned the structure: In the same way, 1 g. hydrourushiol in 75 cc. cold alc. with 1 g. FeCl<sub>3</sub> in 250 cc. H<sub>2</sub>O gives 0.75 g. of a compound (C<sub>42</sub>H<sub>6</sub>O<sub>4</sub>)<sub>2</sub>Fe as a blue-black precipitate C similarly oxidized gives a diphenoquinone, red-brown crystalline precipitate, m. 120-2°, reduced by Zn dust in AcOH to the quinol, m. 80-1.5°. Finally, 0.1 g. E with laccase in 20 cc. alc. and 40 cc. H<sub>2</sub>O treated with air becomes orange, then red-brown, and finally deposits black-violet needles of F (the reaction is complete in 10 hrs.). H treated 1.5 hrs. in H<sub>2</sub>O with air practically does not change but on addition of laccase gradually gives a brown precipitate which does not m. 280° and becomes dark brown in alc. with FeCl<sub>3</sub>; with Zn dust in AcOH it yields a yellow powder m. 150-60° which is apparently the impure tetraacetoxyditolyl. These facts confirm M.'s conclusion that A is an analog of H, viz., 2,3-(HO)<sub>2</sub>C<sub>6</sub>H<sub>3</sub>C<sub>15</sub>H<sub>27</sub>.

ACCESSION NUMBER: 1921:4721 CAPLUS  
 DOCUMENT NUMBER: 15:4721  
 ORIGINAL REFERENCE NO.: 15:863i,864a-i,865a  
 TITLE: Chief constituent of Japanese lac. VII. Urushiol monomethyl ether and the mechanism of the oxidation of urushiol  
 AUTHOR(S): Majima, Riko; Takayama, Gitaro  
 SOURCE: Berichte der Deutschen Chemischen Gesellschaft [Abteilung] B: Abhandlungen (1920), 53B, 1907-16  
 CODEN: BDCBAD; ISSN: 0365-9488  
 DOCUMENT TYPE: Journal  
 LANGUAGE: Unavailable  
 IT 94429-21-7P, p,p'-Biphenol, 2,2'-dimethoxy-6,6'-dimethyl-  
 RL: PREP (Preparation)  
 (preparation of)  
 RN 94429-21-7 CAPLUS  
 CN 4,4'-Bi-m-Cresol, 5,5'-dimethoxy- (7CI) (CA INDEX NAME)

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NEWS	22	JAN 28	MEDLINE and LMEDLINE reloaded with enhancements
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NEWS	25	FEB 25	IFIREF reloaded with enhancements
NEWS	26	FEB 25	IMSPRODUCT reloaded with enhancements
NEWS	27	FEB 29	WPINDEX/WPIIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification

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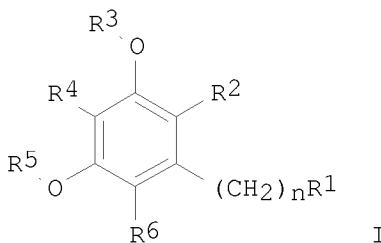
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ACCESSION NUMBER: 2005:612072 CAPLUS
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TITLE: Hsp90 family protein inhibitor
INVENTOR(S): Kitamura, Yushi; Nara, Shinji; Nakagawa, Hiroshi;
               Nakatsu, Rieko; Nakashima, Takayuki; Soga, Shiro;
               Kajita, Jiro; Shiotsu, Yukimasa; Kanda, Yutaka
PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan
SOURCE: PCT Int. Appl., 311 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:
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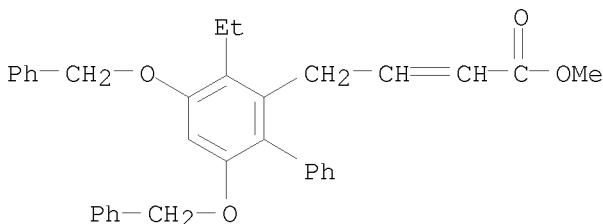
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 US 2007155813 A1 20070705 US 2006-584234 20060626  
 PRIORITY APPLN. INFO.: JP 2003-432776 A 20031226  
 WO 2004-JP19742 W 20041224

OTHER SOURCE(S): MARPAT 143:146661  
 GI



- AB A Hsp90 family protein inhibitor which contains as an active ingredient a benzene derivative represented by the following general formula (I), a prodrug thereof, or a pharmacol. acceptable salt of either.
- IT 860157-53-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (4-[3,5-bis(benzylxy)-2-ethyl-6-phenylphenyl]-2-(methoxycarbonyl)but-2-enoate Me ester; benzene derivs. as Hsp90 family protein inhibitors and antitumor agents)
- RN 860157-53-5 CAPLUS
- CN 2-Butenoic acid, 4-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]-, methyl ester (CA INDEX NAME)



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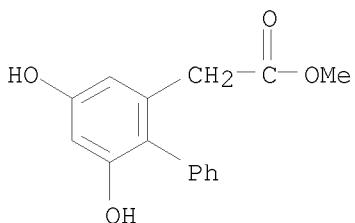
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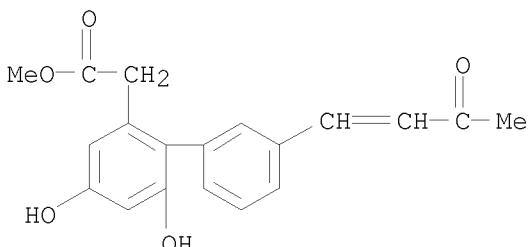
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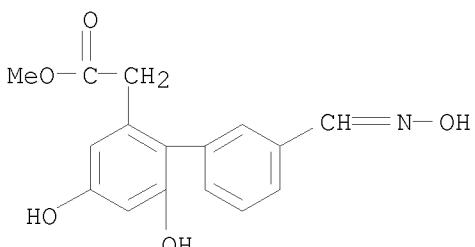
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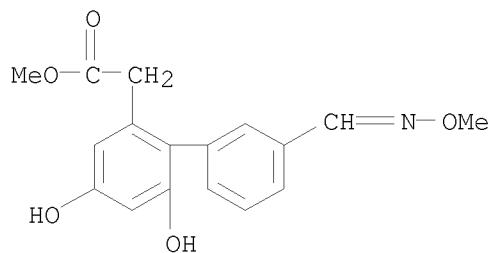
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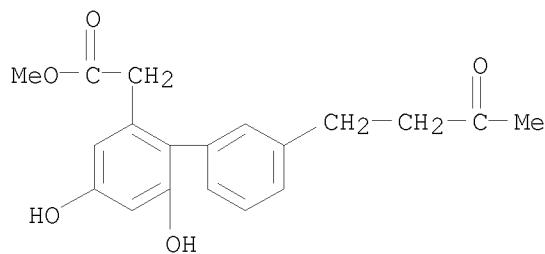
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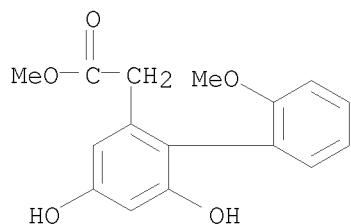
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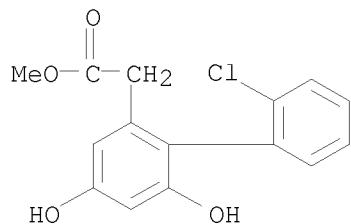
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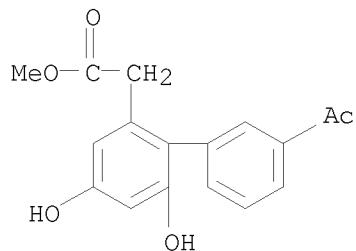


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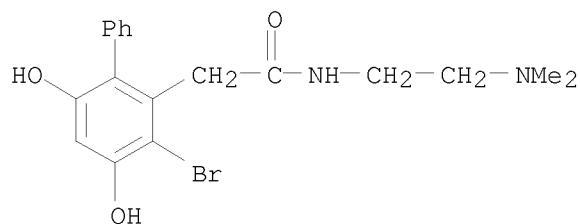
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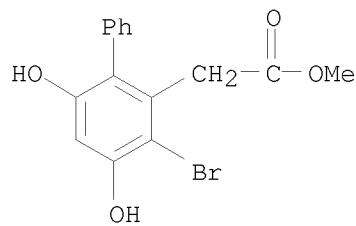
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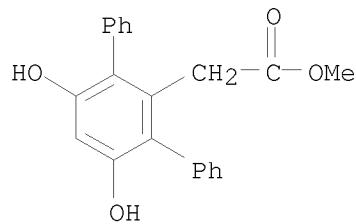
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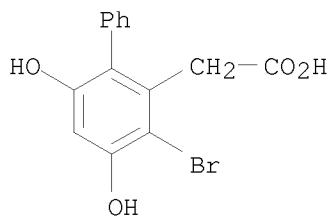
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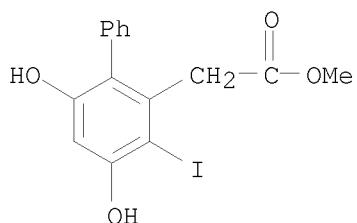
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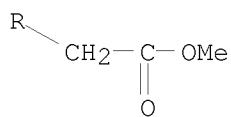
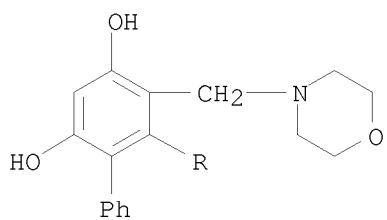
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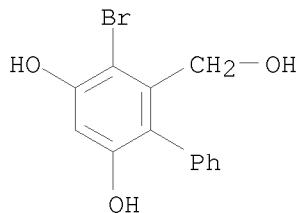
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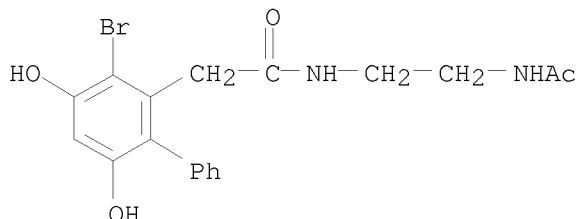
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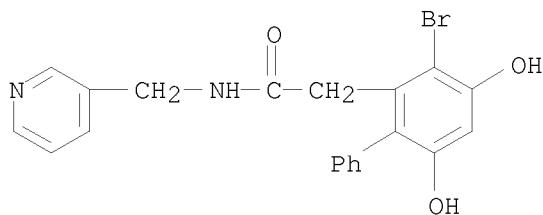
RN 860152-05-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, N-[2-(acetylamino)ethyl]-3-bromo-4,6-dihydroxy- (CA INDEX NAME)



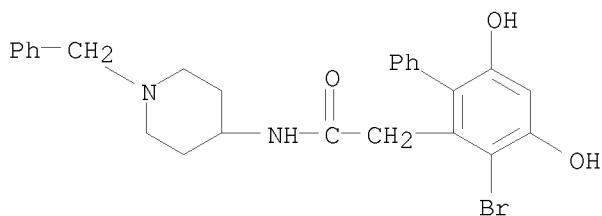
RN 860152-06-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(3-pyridinylmethyl)- (CA INDEX NAME)



RN 860152-07-4 CAPLUS

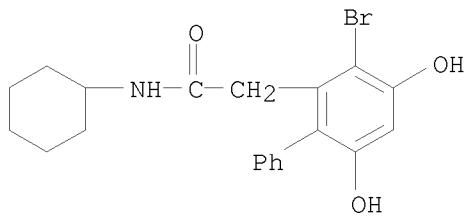
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-[1-(phenylmethyl)-4-piperidinyl]- (CA INDEX NAME)



RN 860152-08-5 CAPLUS

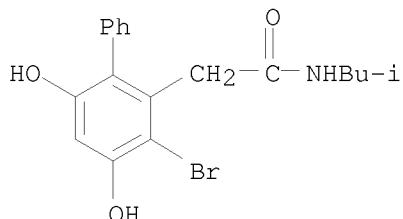
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-cyclohexyl-4,6-dihydroxy- (CA INDEX NAME)

10584234



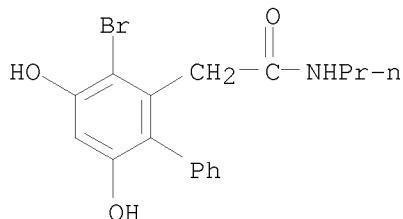
RN 860152-09-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(2-methylpropyl)-  
(CA INDEX NAME)



RN 860152-10-9 CAPLUS

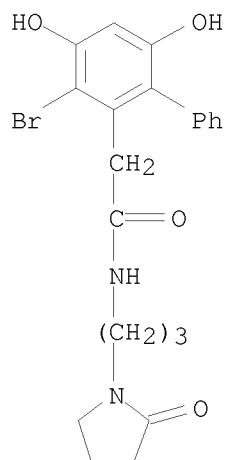
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-propyl- (CA INDEX  
NAME)



RN 860152-11-0 CAPLUS

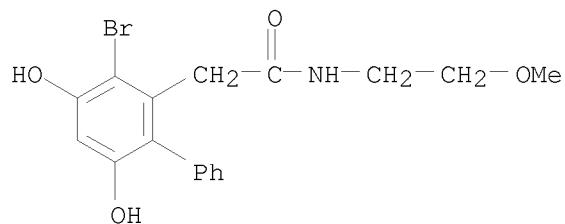
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-[3-(2-oxo-1-  
pyrrolidinyl)propyl]- (CA INDEX NAME)

10584234



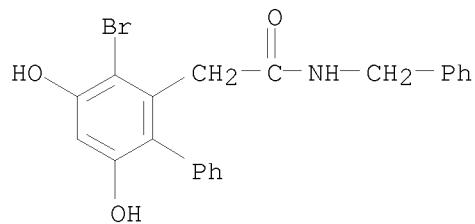
RN 860152-12-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(2-methoxyethyl)-  
(CA INDEX NAME)



RN 860152-13-2 CAPLUS

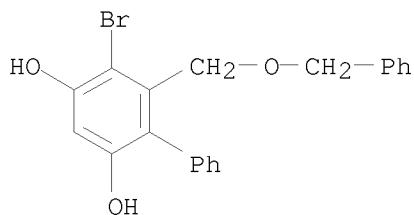
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(phenylmethyl)-  
(CA INDEX NAME)



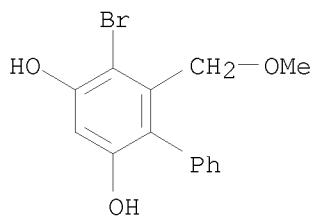
RN 860152-14-3 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[(phenylmethoxy)methyl]-  
(CA INDEX NAME)

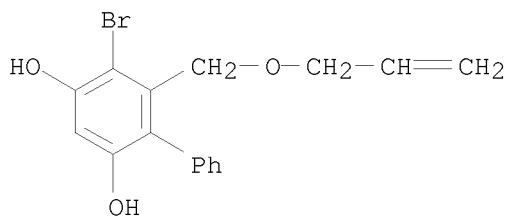
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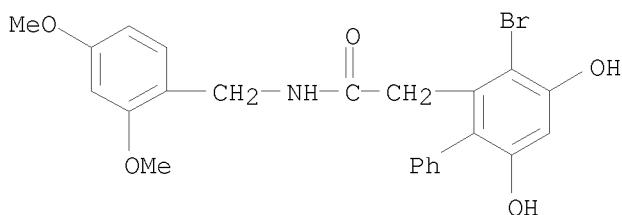
RN 860152-15-4 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diyl, 5-bromo-6-(methoxymethyl)- (CA INDEX NAME)



RN 860152-16-5 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diyl, 5-bromo-6-[2-propenylmethoxy]- (9CI) (CA INDEX NAME)

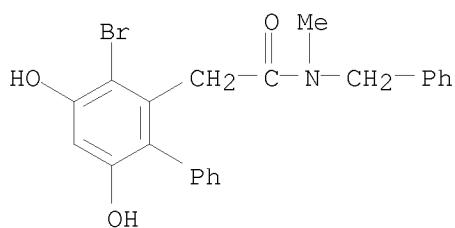


RN 860152-17-6 CAPLUS  
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-[(2,4-dimethoxyphenyl)methyl]-4,6-dihydroxy- (CA INDEX NAME)



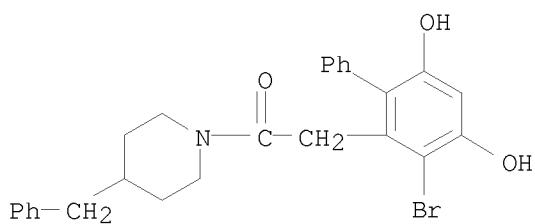
RN 860152-18-7 CAPLUS  
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl-N-(phenylmethyl)- (CA INDEX NAME)

10584234



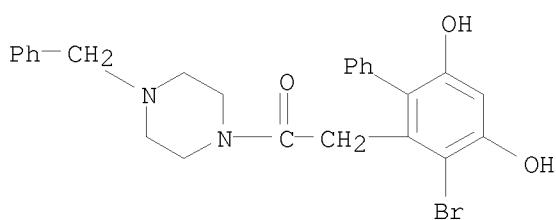
RN 860152-19-8 CAPLUS

CN Piperidine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-(phenylmethyl)- (9CI) (CA INDEX NAME)



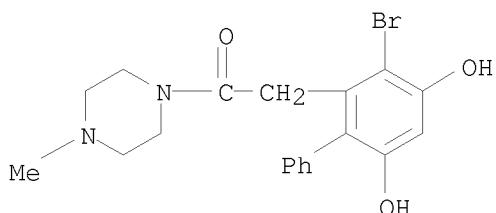
RN 860152-20-1 CAPLUS

CN Piperazine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 860152-21-2 CAPLUS

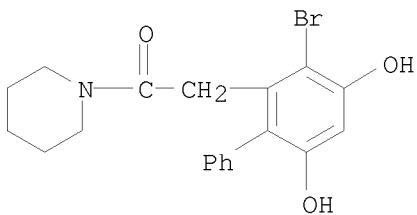
CN Piperazine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-methyl- (9CI) (CA INDEX NAME)



RN 860152-22-3 CAPLUS

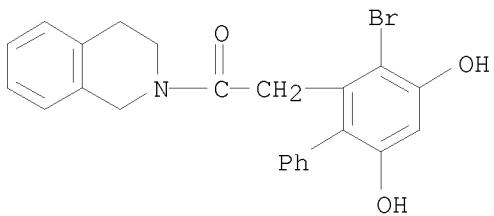
CN Piperidine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]- (9CI) (CA INDEX NAME)

10584234



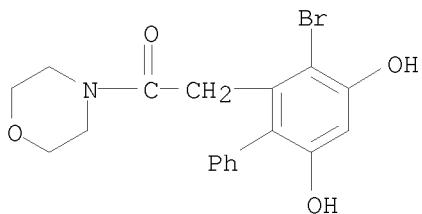
RN 860152-23-4 CAPLUS

CN Isoquinoline, 2-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



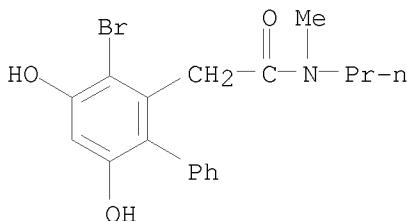
RN 860152-24-5 CAPLUS

CN Morpholine, 4-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]- (9CI) (CA INDEX NAME)



RN 860152-25-6 CAPLUS

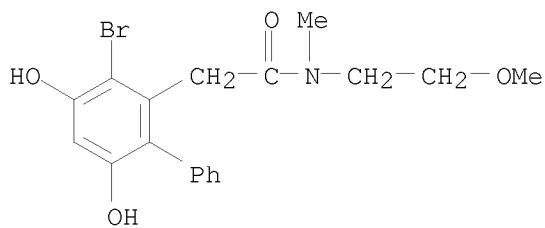
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl-N-propyl- (CA INDEX NAME)



RN 860152-26-7 CAPLUS

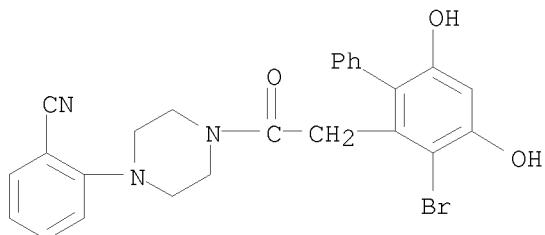
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(2-methoxyethyl)-N-methyl- (CA INDEX NAME)

10584234



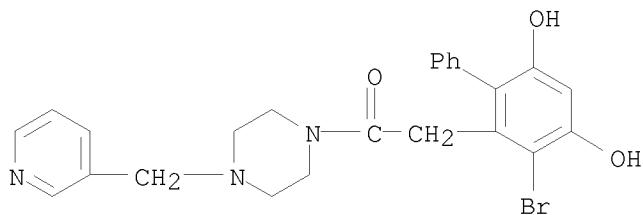
RN 860152-27-8 CAPLUS

CN Piperazine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-(2-cyanophenyl)- (9CI) (CA INDEX NAME)



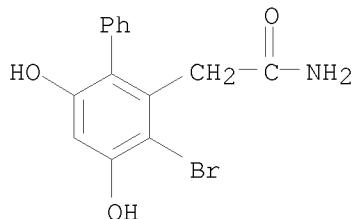
RN 860152-28-9 CAPLUS

CN Piperazine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)



RN 860152-29-0 CAPLUS

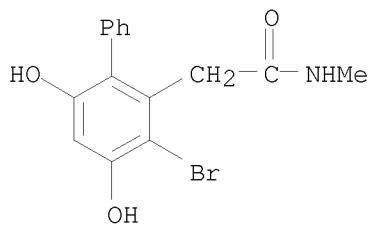
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy- (CA INDEX NAME)



RN 860152-30-3 CAPLUS

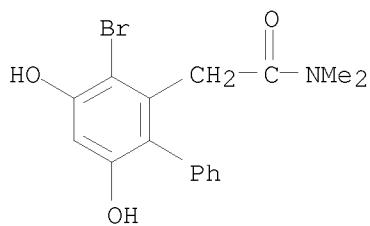
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl- (CA INDEX NAME)

10584234



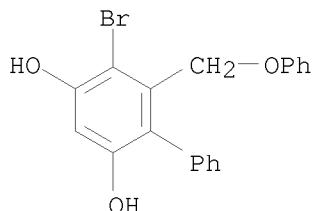
RN 860152-31-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N,N-dimethyl- (CA INDEX NAME)



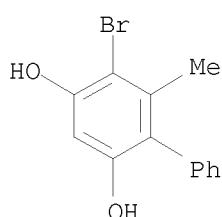
RN 860152-32-5 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-(phenoxyethyl)- (CA INDEX NAME)



RN 860152-33-6 CAPLUS

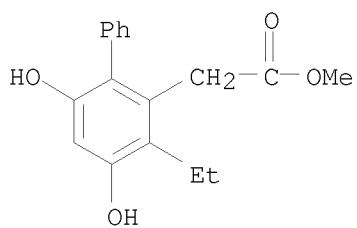
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-methyl- (CA INDEX NAME)



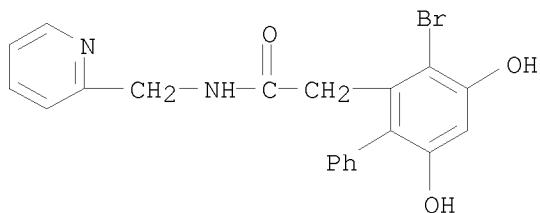
RN 860152-40-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

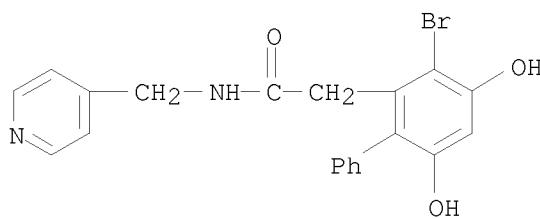
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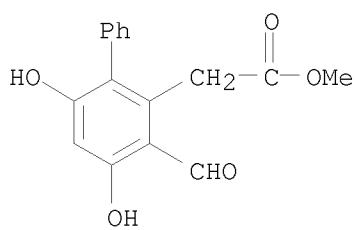
RN 860152-41-6 CAPLUS  
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(2-pyridinylmethyl)-  
(CA INDEX NAME)



RN 860152-42-7 CAPLUS  
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-(4-pyridinylmethyl)-  
(CA INDEX NAME)

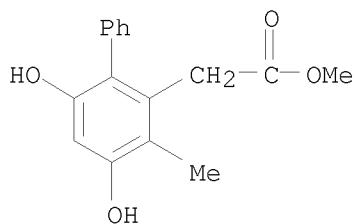


RN 860152-43-8 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3-formyl-4,6-dihydroxy-, methyl ester (CA  
INDEX NAME)

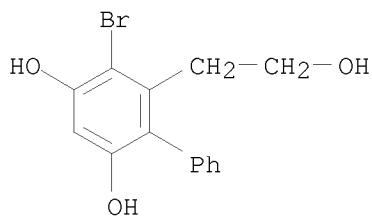


RN 860152-44-9 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3-methyl-, methyl ester (CA  
INDEX NAME)

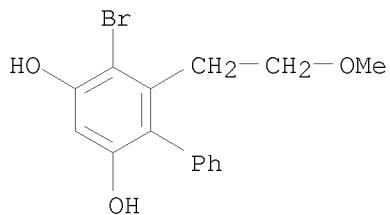
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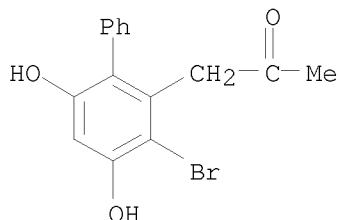
RN 860152-50-7 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-(2-hydroxyethyl)- (CA INDEX NAME)



RN 860152-52-9 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-(2-methoxyethyl)- (CA INDEX NAME)

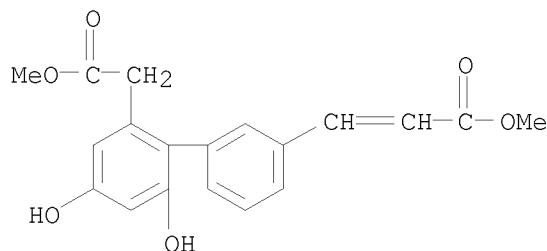


RN 860152-53-0 CAPLUS  
CN 2-Propanone, 1-(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)- (CA INDEX NAME)



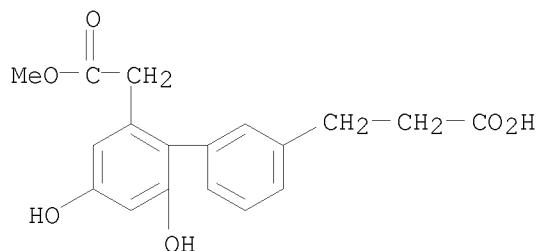
RN 860152-54-1 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(3-methoxy-3-oxo-1-propenyl)-, methyl ester (9CI) (CA INDEX NAME)

10584234



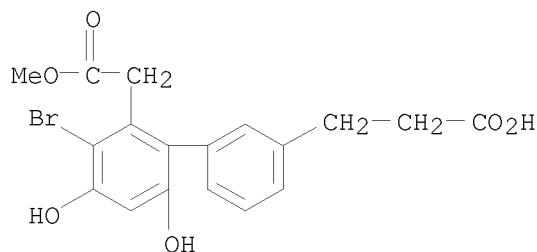
RN 860152-55-2 CAPLUS

CN [1,1'-Biphenyl]-3-propanoic acid, 2',4'-dihydroxy-6'-(2-methoxy-2-oxoethyl)- (CA INDEX NAME)



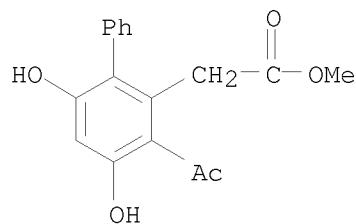
RN 860152-56-3 CAPLUS

CN [1,1'-Biphenyl]-3-propanoic acid, 3'-bromo-4',6'-dihydroxy-2'-(2-methoxy-2-oxoethyl)- (CA INDEX NAME)



RN 860152-57-4 CAPLUS

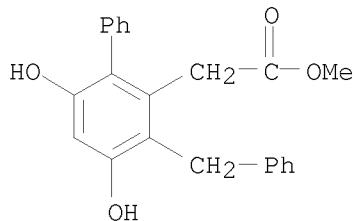
CN [1,1'-Biphenyl]-2-acetic acid, 3-acetyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)



RN 860152-58-5 CAPLUS

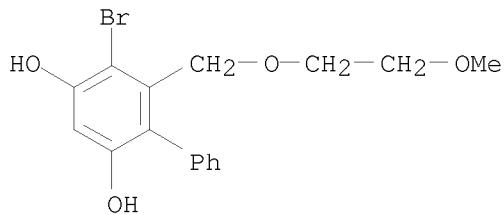
10584234

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3-(phenylmethyl)-, methyl ester (CA INDEX NAME)



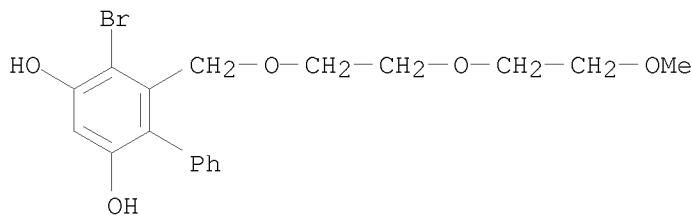
RN 860152-59-6 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[ (2-methoxyethoxy)methyl]- (CA INDEX NAME)



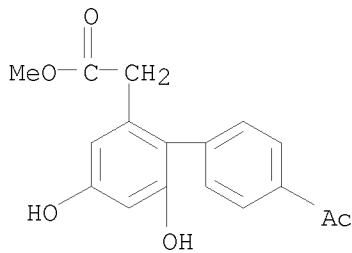
RN 860152-60-9 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[ [2-(2-methoxyethoxy)ethoxy]methyl]- (CA INDEX NAME)



RN 860152-61-0 CAPLUS

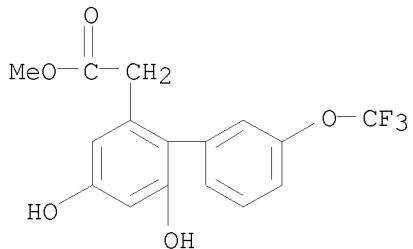
CN [1,1'-Biphenyl]-2-acetic acid, 4'-acetyl-4,6-dihydroxy-, methyl ester (CA INDEX NAME)



10584234

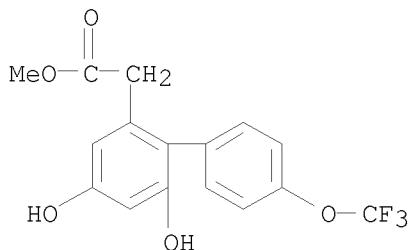
RN 860152-62-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(trifluoromethoxy)-, methyl ester (CA INDEX NAME)



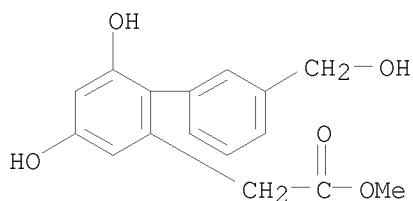
RN 860152-63-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-4'-(trifluoromethoxy)-, methyl ester (CA INDEX NAME)



RN 860152-64-3 CAPLUS

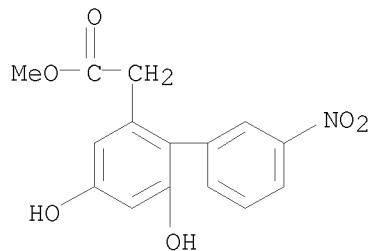
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-(hydroxymethyl)-, methyl ester (CA INDEX NAME)



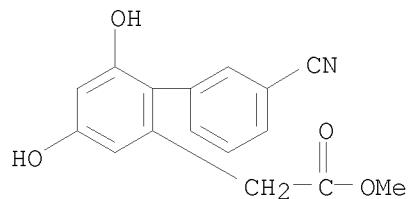
RN 860152-65-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-nitro-, methyl ester (CA INDEX NAME)

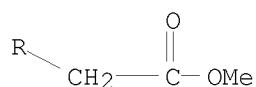
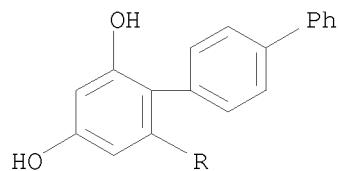
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RN 860152-66-5 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3'-cyano-4,6-dihydroxy-, methyl ester (CA INDEX NAME)

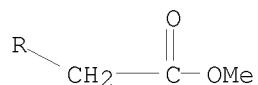
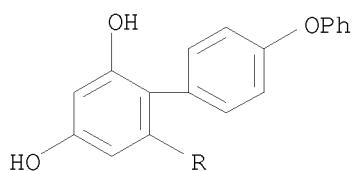


RN 860152-67-6 CAPLUS  
CN [1,1':4',1''-Terphenyl]-2-acetic acid, 4,6-dihydroxy-, methyl ester (9CI)  
(CA INDEX NAME)



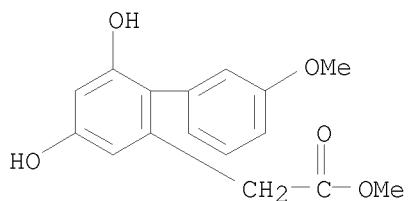
RN 860152-68-7 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-4'-phenoxy-, methyl ester  
(CA INDEX NAME)

10584234



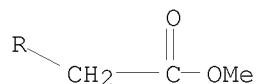
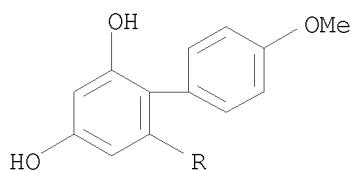
RN 860152-69-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-3'-methoxy-, methyl ester  
(CA INDEX NAME)



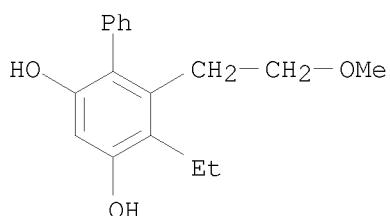
RN 860152-70-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-dihydroxy-4'-methoxy-, methyl ester  
(CA INDEX NAME)



RN 860152-71-2 CAPLUS

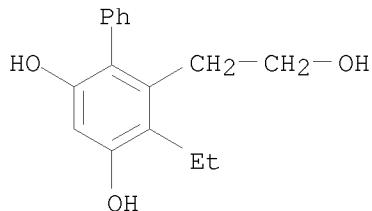
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-(2-methoxyethyl)- (CA INDEX NAME)



10584234

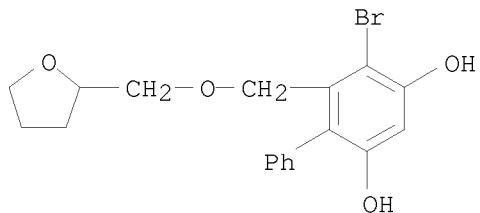
RN 860152-72-3 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-(2-hydroxyethyl)- (CA INDEX NAME)



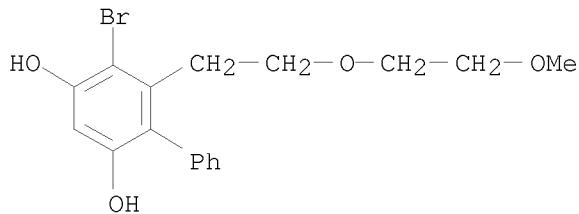
RN 860152-73-4 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[[(tetrahydro-2-furanyl)methoxy]methyl]- (CA INDEX NAME)



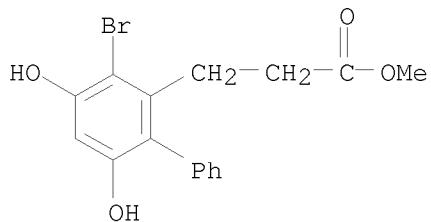
RN 860152-74-5 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[2-(2-methoxyethoxy)ethyl]- (CA INDEX NAME)



RN 860152-75-6 CAPLUS

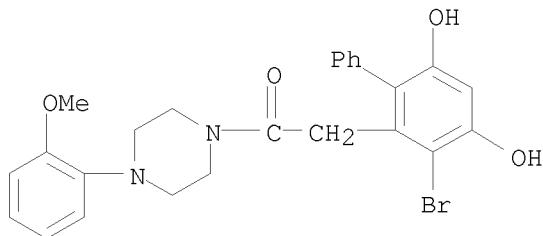
CN [1,1'-Biphenyl]-2-propanoic acid, 3-bromo-4,6-dihydroxy-, methyl ester (CA INDEX NAME)



RN 860152-76-7 CAPLUS

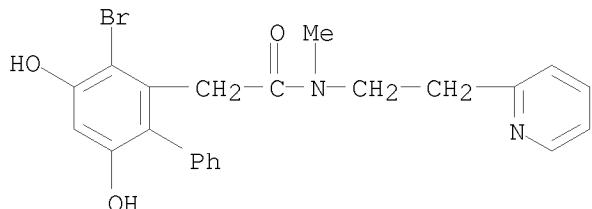
10584234

CN Piperazine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)



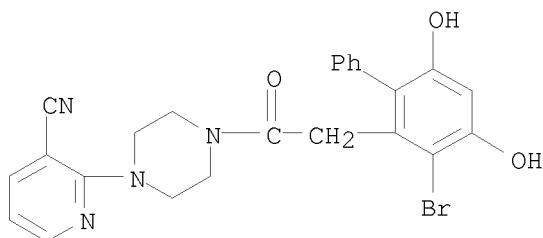
RN 860152-77-8 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-dihydroxy-N-methyl-N-[2-(2-pyridinyl)ethyl]- (CA INDEX NAME)



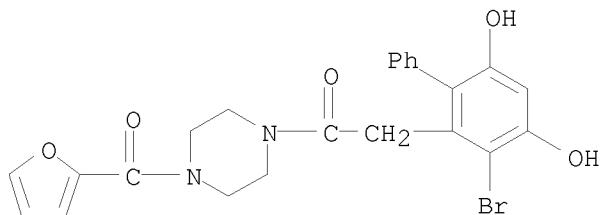
RN 860152-78-9 CAPLUS

CN Piperazine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-(3-cyano-2-pyridinyl)- (9CI) (CA INDEX NAME)



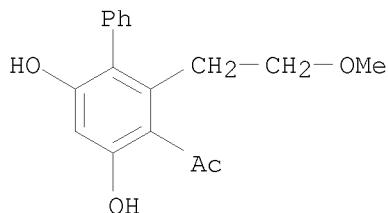
RN 860152-79-0 CAPLUS

CN Piperazine, 1-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-4-(2-furanylcarbonyl)- (9CI) (CA INDEX NAME)

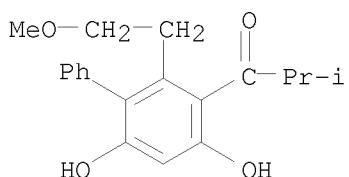


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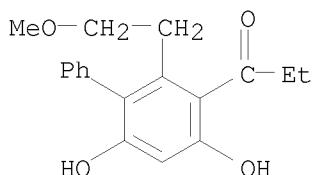
RN 860152-80-3 CAPLUS  
CN Ethanone, 1-[4,6-dihydroxy-2-(2-methoxyethyl)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



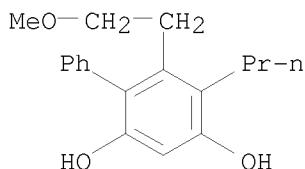
RN 860152-81-4 CAPLUS  
CN 1-Propanone, 1-[4,6-dihydroxy-2-(2-methoxyethyl)[1,1'-biphenyl]-3-yl]-2-methyl- (CA INDEX NAME)



RN 860152-82-5 CAPLUS  
CN 1-Propanone, 1-[4,6-dihydroxy-2-(2-methoxyethyl)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

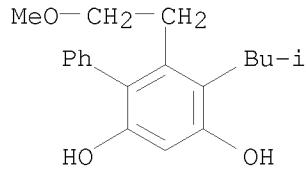


RN 860152-83-6 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 6-(2-methoxyethyl)-5-propyl- (CA INDEX NAME)

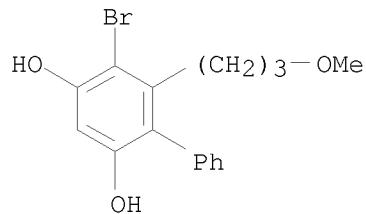


RN 860152-84-7 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 6-(2-methoxyethyl)-5-(2-methylpropyl)- (CA INDEX NAME)

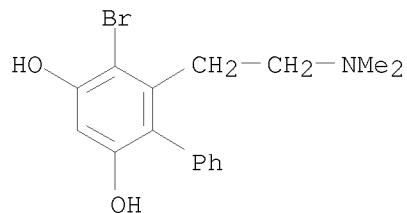
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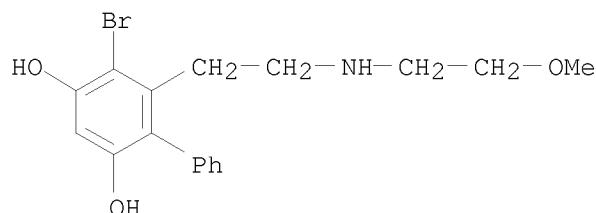
RN 860152-85-8 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-(3-methoxypropyl)- (CA INDEX NAME)



RN 860152-87-0 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[2-(dimethylamino)ethyl]- (CA INDEX NAME)

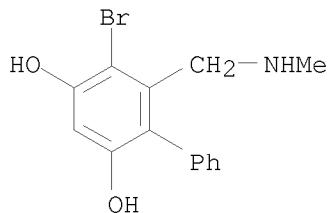


RN 860152-88-1 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[2-(2-methoxyethylamino)ethyl]- (CA INDEX NAME)

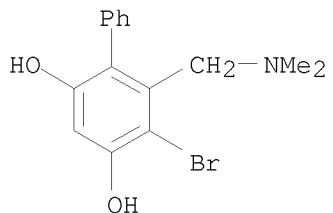


RN 860152-89-2 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[(methylamino)methyl]- (CA INDEX NAME)

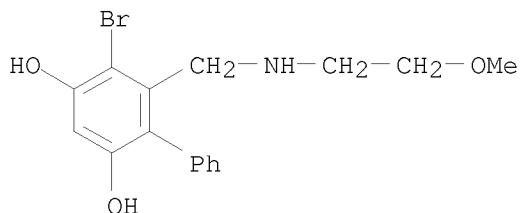
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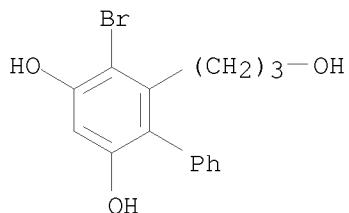
RN 860152-90-5 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[(dimethylamino)methyl]- (CA INDEX NAME)



RN 860152-91-6 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[(2-methoxyethyl)amino]methyl- (CA INDEX NAME)

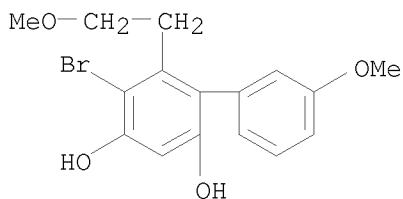


RN 860152-92-7 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-(3-hydroxypropyl)- (CA INDEX NAME)



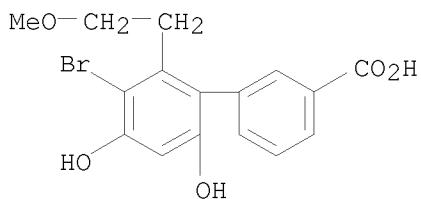
RN 860152-93-8 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-3'-(2-methoxyethyl)- (CA INDEX NAME)

10584234



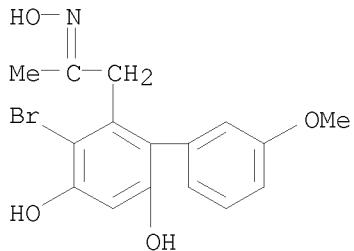
RN 860152-94-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-bromo-4',6'-dihydroxy-2'-(2-methoxyethyl)- (CA INDEX NAME)



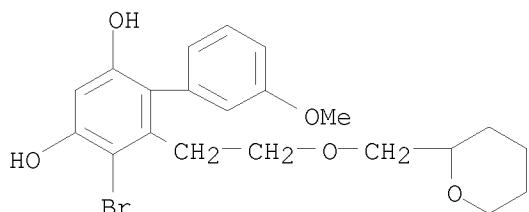
RN 860152-95-0 CAPLUS

CN 2-Propanone, 1-(3-bromo-4,6-dihydroxy-3'-methoxy[1,1'-biphenyl]-2-yl)-, oxime (CA INDEX NAME)



RN 860152-96-1 CAPLUS

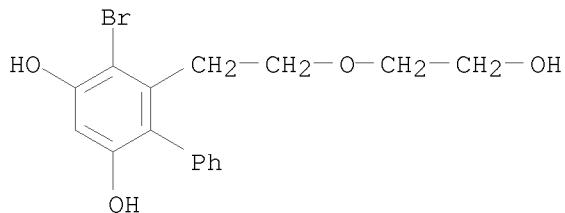
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-3'-methoxy-6-[2-[(tetrahydro-2H-pyran-2-yl)methoxy]ethyl]- (CA INDEX NAME)



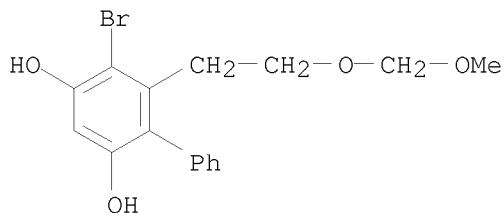
RN 860152-98-3 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[2-(2-hydroxyethoxy)ethyl]- (CA INDEX NAME)

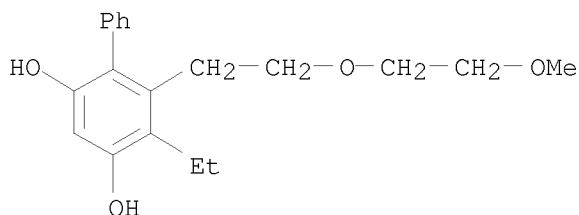
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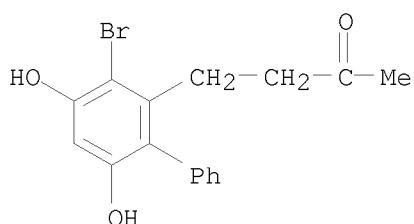
RN 860152-99-4 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[2-(methoxymethoxy)ethyl]- (CA INDEX NAME)



RN 860153-01-1 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(2-methoxyethoxy)ethyl]- (CA INDEX NAME)

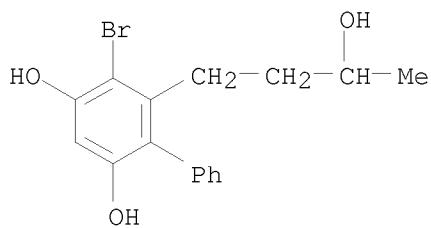


RN 860153-02-2 CAPLUS  
CN 2-Butanone, 4-(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)- (CA INDEX NAME)



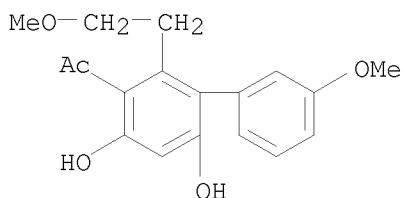
RN 860153-03-3 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-(3-hydroxybutyl)- (CA INDEX NAME)

10584234



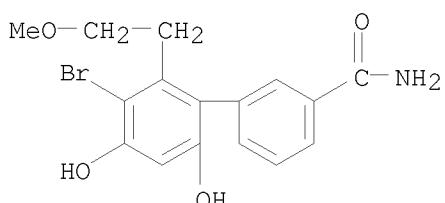
RN 860153-04-4 CAPLUS

CN Ethanone, 1-[4,6-dihydroxy-3'-methoxy-2-(2-methoxyethyl)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



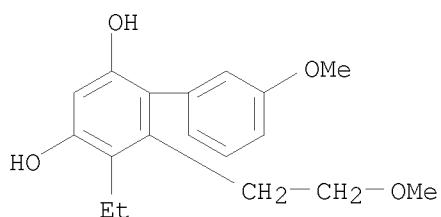
RN 860153-05-5 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 3'-bromo-4',6'-dihydroxy-2'-(2-methoxyethyl)- (CA INDEX NAME)



RN 860153-06-6 CAPLUS

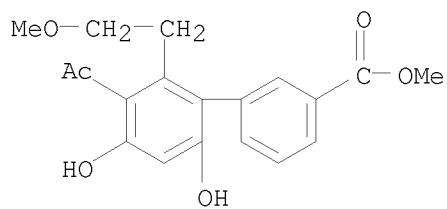
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-3'-methoxy-6-(2-methoxyethyl)- (CA INDEX NAME)



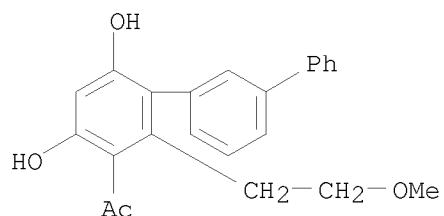
RN 860153-07-7 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-acetyl-4',6'-dihydroxy-2'-(2-methoxyethyl)-, methyl ester (CA INDEX NAME)

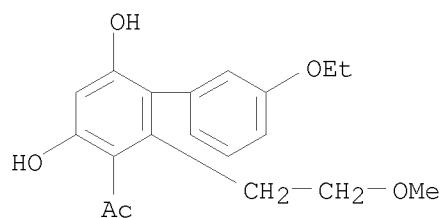
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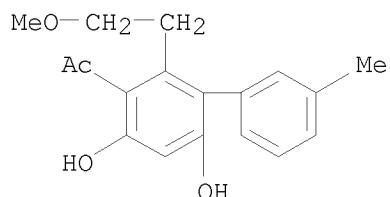
RN 860153-08-8 CAPLUS  
CN Ethanone, 1-[4,6-dihydroxy-2-(2-methoxyethyl)][1,1':3',1'''-terphenyl]-3-yl-  
(9CI) (CA INDEX NAME)



RN 860153-09-9 CAPLUS  
CN Ethanone, 1-[3'-ethoxy-4,6-dihydroxy-2-(2-methoxyethyl)][1,1'-biphenyl]-3-  
yl- (CA INDEX NAME)

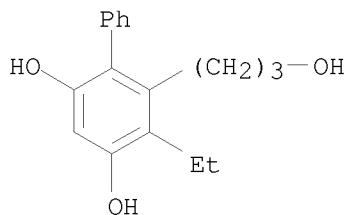


RN 860153-10-2 CAPLUS  
CN Ethanone, 1-[4,6-dihydroxy-2-(2-methoxyethyl)-3'-methyl][1,1'-biphenyl]-3-  
yl- (CA INDEX NAME)



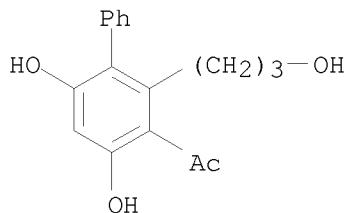
RN 860153-11-3 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-(3-hydroxypropyl)- (CA INDEX NAME)

10584234



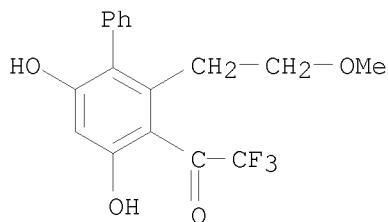
RN 860153-12-4 CAPLUS

CN Ethanone, 1-[4,6-dihydroxy-2-(3-hydroxypropyl)][1,1'-biphenyl]-3-yl- (CA INDEX NAME)



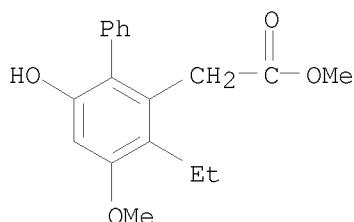
RN 860153-13-5 CAPLUS

CN Ethanone, 1-[4,6-dihydroxy-2-(2-methoxyethyl)][1,1'-biphenyl]-3-yl-2,2-trifluoro- (CA INDEX NAME)



RN 860153-14-6 CAPLUS

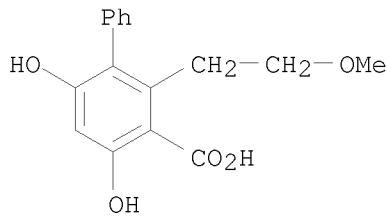
CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-6-hydroxy-4-methoxy-, methyl ester (CA INDEX NAME)



RN 860153-15-7 CAPLUS

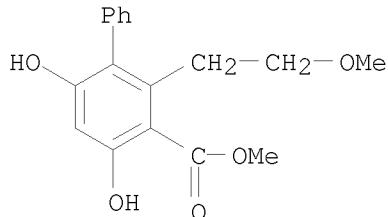
CN [1,1'-Biphenyl]-3-carboxylic acid, 4,6-dihydroxy-2-(2-methoxyethyl)- (CA INDEX NAME)

10584234



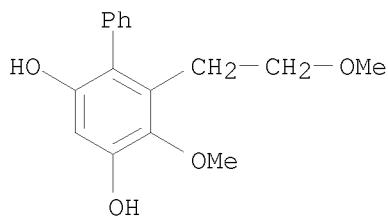
RN 860153-16-8 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 4,6-dihydroxy-2-(2-methoxyethyl)-, methyl ester (CA INDEX NAME)



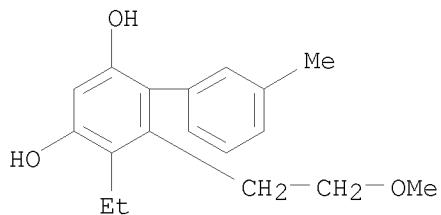
RN 860153-17-9 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-methoxy-6-(2-methoxyethyl)- (CA INDEX NAME)



RN 860153-18-0 CAPLUS

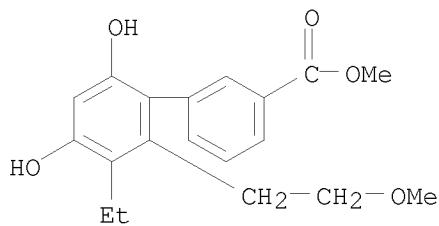
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-(2-methoxyethyl)-3'-methyl- (CA INDEX NAME)



RN 860153-19-1 CAPLUS

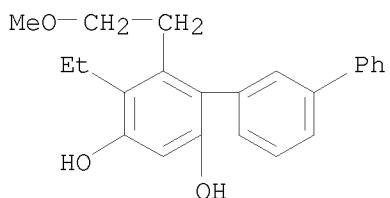
CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-ethyl-4',6'-dihydroxy-2'-(2-methoxyethyl)-, methyl ester (CA INDEX NAME)

10584234



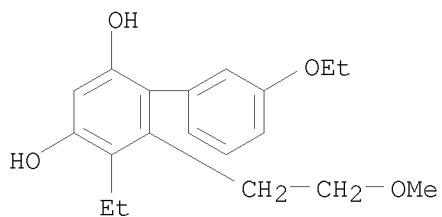
RN 860153-20-4 CAPLUS

CN [1,1':3',1''-Terphenyl]-2,4-diol, 5-ethyl-6-(2-methoxyethyl)- (9CI) (CA INDEX NAME)



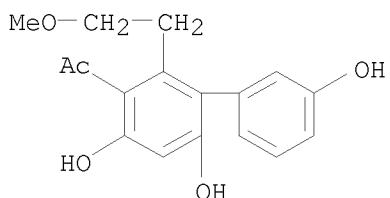
RN 860153-21-5 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 3'-ethoxy-5-ethyl-6-(2-methoxyethyl)- (CA INDEX NAME)



RN 860153-22-6 CAPLUS

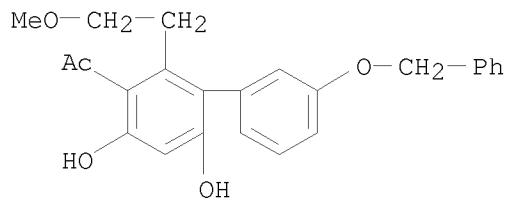
CN Ethanone, 1-[3',4,6-trihydroxy-2-(2-methoxyethyl)][1,1'-biphenyl]-3-yl- (CA INDEX NAME)



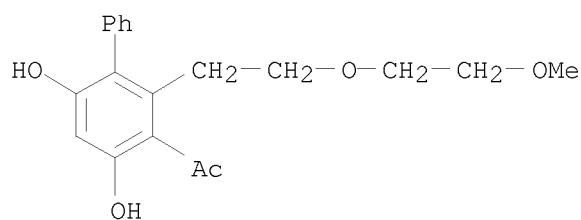
RN 860153-23-7 CAPLUS

CN Ethanone, 1-[4,6-dihydroxy-2-(2-methoxyethyl)-3'-(phenylmethoxy)][1,1'-biphenyl]-3-yl- (CA INDEX NAME)

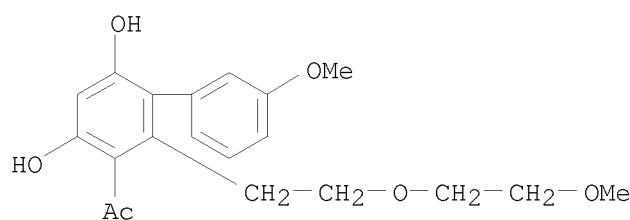
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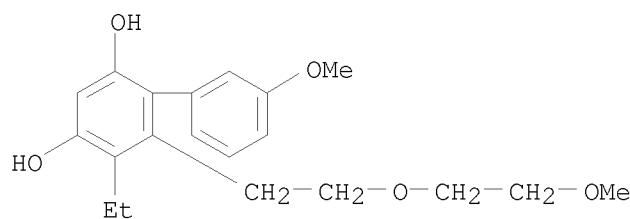
RN 860153-24-8 CAPLUS  
CN Ethanone, 1-[4,6-dihydroxy-2-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860153-25-9 CAPLUS  
CN Ethanone, 1-[4,6-dihydroxy-3'-methoxy-2-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

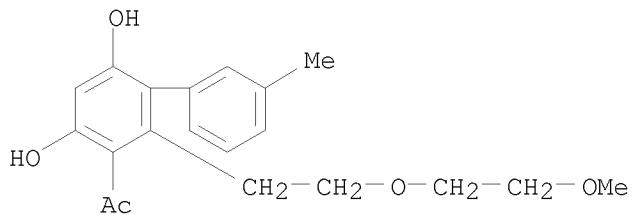


RN 860153-26-0 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-3'-methoxy-6-[2-(2-methoxyethoxy)ethyl]- (CA INDEX NAME)



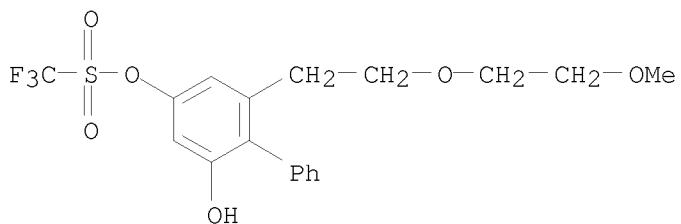
RN 860153-27-1 CAPLUS  
CN Ethanone, 1-[4,6-dihydroxy-2-[2-(2-methoxyethoxy)ethyl]-3'-methyl[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

10584234



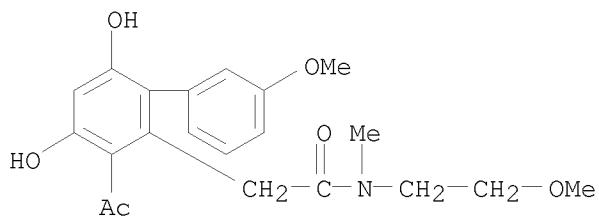
RN 860153-28-2 CAPLUS

CN Methanesulfonic acid, trifluoro-, 2-hydroxy-6-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-4-yl ester (9CI) (CA INDEX NAME)



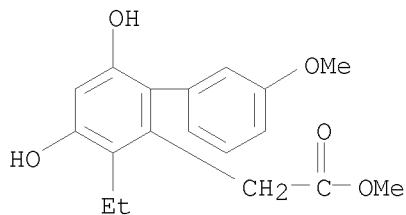
RN 860153-29-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-acetyl-4,6-dihydroxy-3'-methoxy-N-(2-methoxyethyl)-N-methyl- (CA INDEX NAME)



RN 860153-30-6 CAPLUS

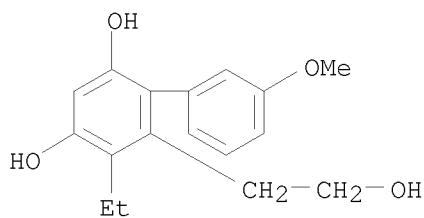
CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4,6-dihydroxy-3'-methoxy-, methyl ester (CA INDEX NAME)



RN 860153-31-7 CAPLUS

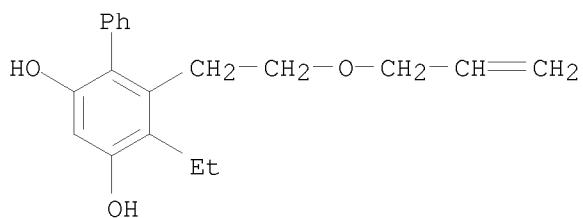
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-(2-hydroxyethyl)-3'-methoxy- (CA INDEX NAME)

10584234



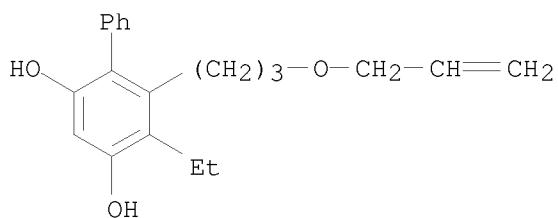
RN 860153-32-8 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(2-propenyl)oxy]ethyl- (9CI) (CA INDEX NAME)



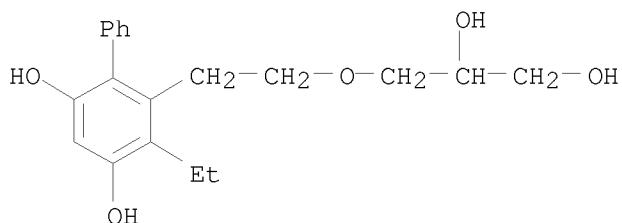
RN 860153-33-9 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[3-(2-propenyl)oxy]propyl- (9CI) (CA INDEX NAME)



RN 860153-35-1 CAPLUS

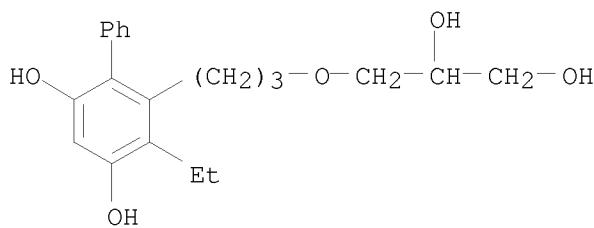
CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl- (CA INDEX NAME)



RN 860153-36-2 CAPLUS

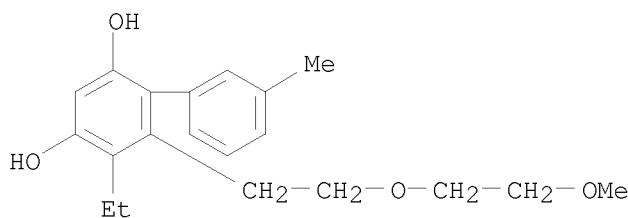
CN [1,1'-Biphenyl]-2,4-diol, 6-[3-(2,3-dihydroxypropoxy)propyl]-5-ethyl- (CA INDEX NAME)

10584234



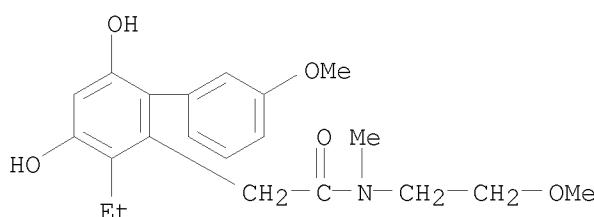
RN 860153-37-3 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(2-methoxyethoxy)ethyl]-3'-methyl-  
(CA INDEX NAME)



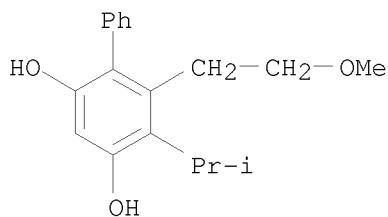
RN 860153-38-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-4,6-dihydroxy-3'-methoxy-N-(2-methoxyethyl)-N-methyl-  
(CA INDEX NAME)



RN 860153-39-5 CAPLUS

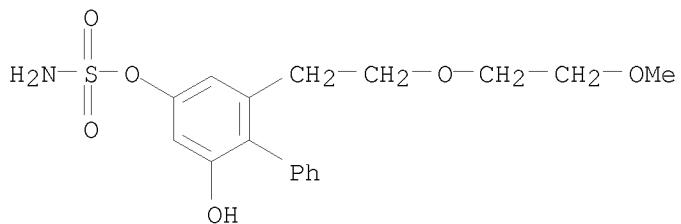
CN [1,1'-Biphenyl]-2,4-diol, 6-(2-methoxyethyl)-5-(1-methylethyl)-  
(CA INDEX NAME)



RN 860153-40-8 CAPLUS

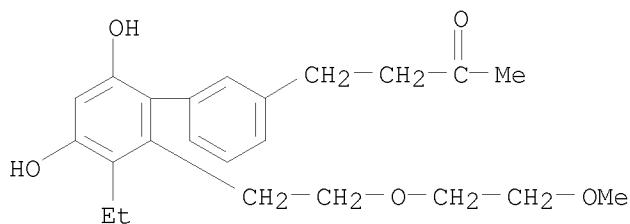
CN Sulfamic acid, 2-hydroxy-6-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-4-yl  
ester (9CI) (CA INDEX NAME)

10584234



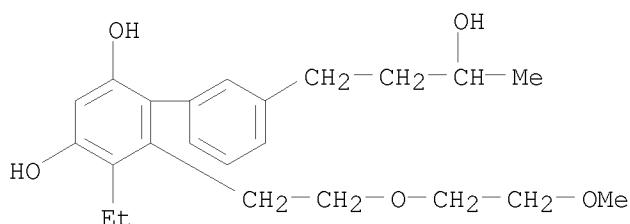
RN 860153-41-9 CAPLUS

CN 2-Butanone, 4-[3'-ethyl-4',6'-dihydroxy-2'-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-3-yl]-(CA INDEX NAME)



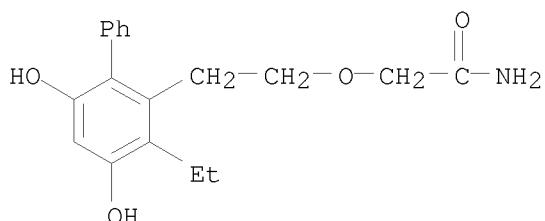
RN 860153-42-0 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-3'-(3-hydroxybutyl)-6-[2-(2-methoxyethoxy)ethyl]-(CA INDEX NAME)



RN 860153-43-1 CAPLUS

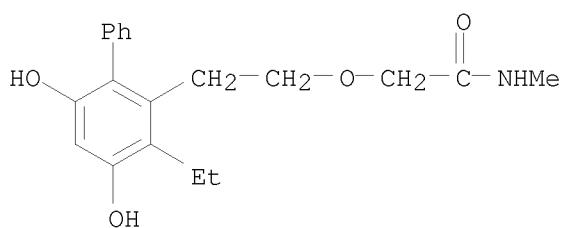
CN Acetamide, 2-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethoxy]- (CA INDEX NAME)



RN 860153-44-2 CAPLUS

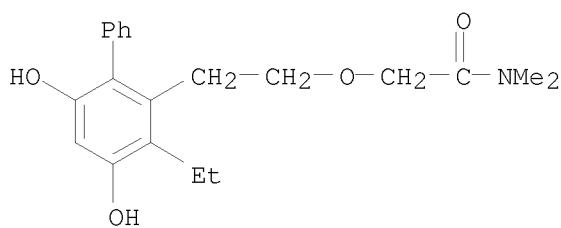
CN Acetamide, 2-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethoxy]-N-methyl- (CA INDEX NAME)

10584234



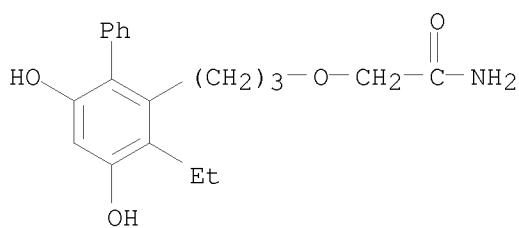
RN 860153-45-3 CAPLUS

CN Acetamide, 2-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethoxy]-N,N-dimethyl- (CA INDEX NAME)



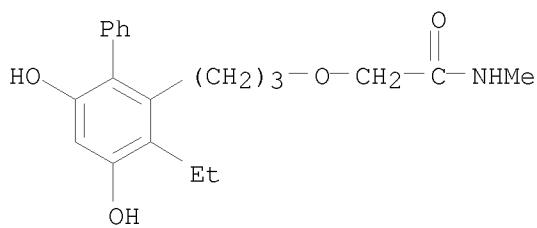
RN 860153-46-4 CAPLUS

CN Acetamide, 2-[3-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)propoxy]- (CA INDEX NAME)



RN 860153-47-5 CAPLUS

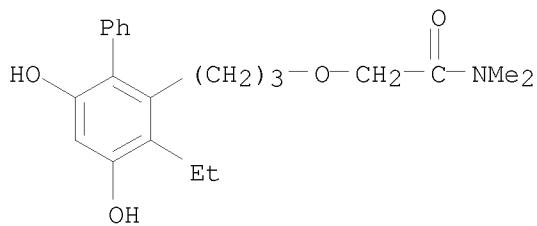
CN Acetamide, 2-[3-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)propoxy]-N-methyl- (CA INDEX NAME)



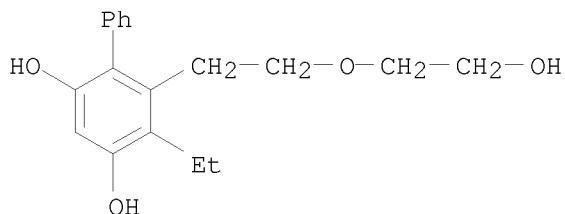
RN 860153-48-6 CAPLUS

CN Acetamide, 2-[3-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)propoxy]-N,N-dimethyl- (CA INDEX NAME)

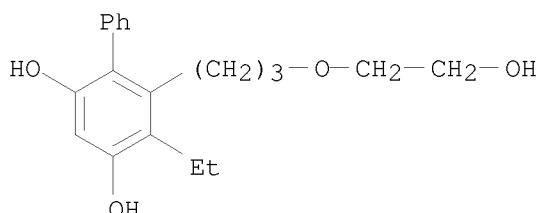
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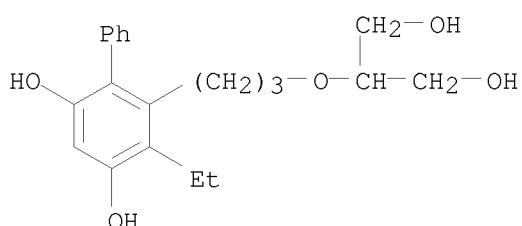
RN 860153-49-7 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(2-hydroxyethoxy)ethyl]- (CA INDEX NAME)



RN 860153-50-0 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[3-(2-hydroxyethoxy)propyl]- (CA INDEX NAME)

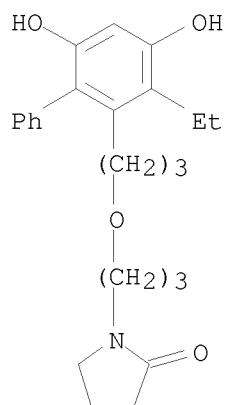


RN 860153-51-1 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[3-[2-hydroxy-1-(hydroxymethyl)ethoxy]propyl]- (CA INDEX NAME)

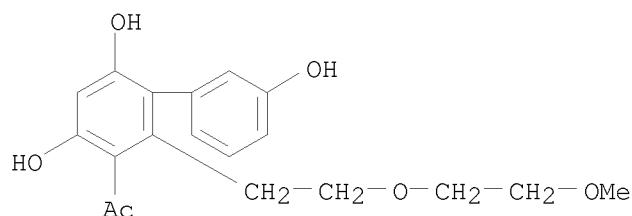


RN 860153-52-2 CAPLUS  
CN 2-Pyrrolidinone, 1-[3-[3-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)propoxy]propyl]- (CA INDEX NAME)

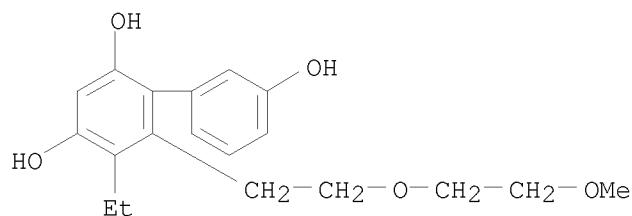
10584234



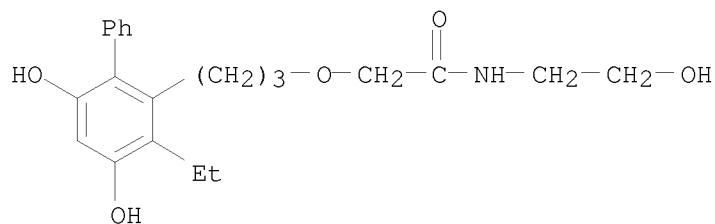
RN 860153-53-3 CAPLUS  
CN Ethanone, 1-[3',4,6-trihydroxy-2-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860153-54-4 CAPLUS  
CN [1,1'-Biphenyl]-2,3',4-triol, 5-ethyl-6-[2-(2-methoxyethoxy)ethyl]- (CA INDEX NAME)



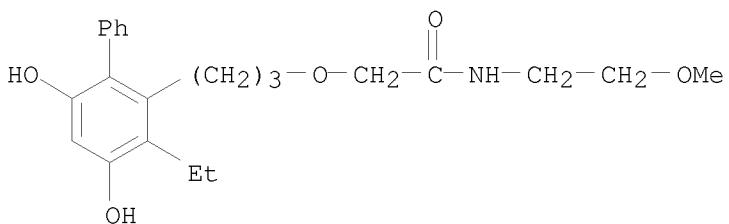
RN 860153-55-5 CAPLUS  
CN Acetamide, 2-[3-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)propoxy]-N-(2-hydroxyethyl)- (CA INDEX NAME)



10584234

RN 860153-56-6 CAPLUS

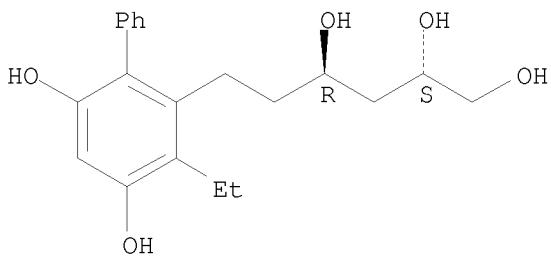
CN Acetamide, 2-[3-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)propoxy]-N-(2-methoxyethyl)- (CA INDEX NAME)



RN 860153-57-7 CAPLUS

CN 1,2,4-Hexanetriol, 6-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)-, (2R,4S)-rel- (CA INDEX NAME)

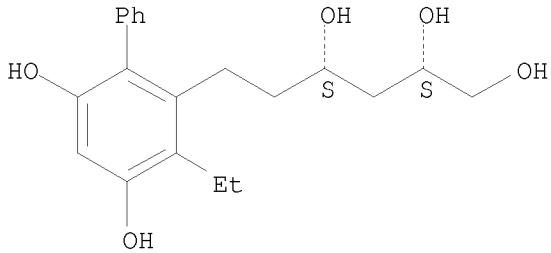
Relative stereochemistry.



RN 860153-58-8 CAPLUS

CN 1,2,4-Hexanetriol, 6-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)-, (2R,4R)-rel- (CA INDEX NAME)

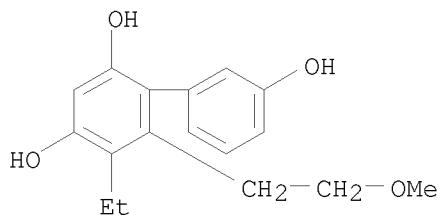
Relative stereochemistry.



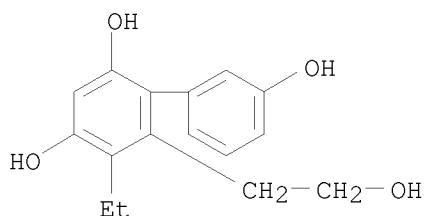
RN 860153-59-9 CAPLUS

CN [1,1'-Biphenyl]-2,3',4-triol, 5-ethyl-6-(2-methoxyethyl)- (CA INDEX NAME)

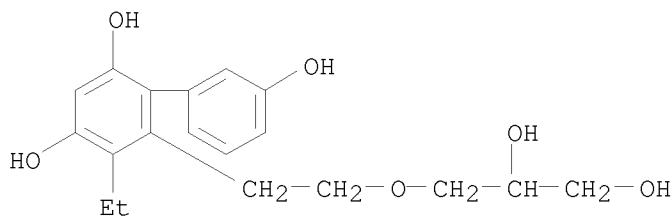
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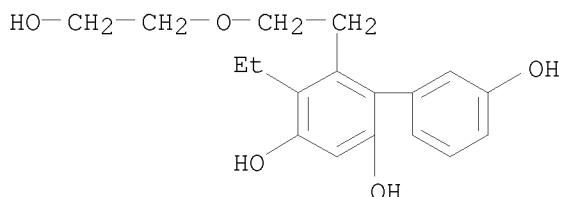
RN 860153-60-2 CAPLUS  
CN [1,1'-Biphenyl]-2,3',4-triol, 5-ethyl-6-(2-hydroxyethyl)- (CA INDEX NAME)



RN 860153-61-3 CAPLUS  
CN [1,1'-Biphenyl]-2,3',4-triol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl- (CA INDEX NAME)

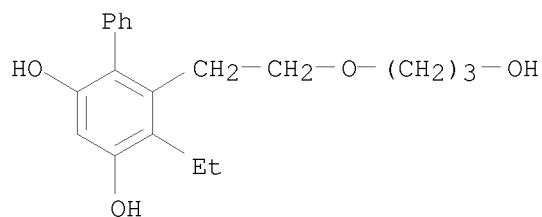


RN 860153-62-4 CAPLUS  
CN [1,1'-Biphenyl]-2,3',4-triol, 5-ethyl-6-[2-(2-hydroxyethoxy)ethyl]- (CA INDEX NAME)

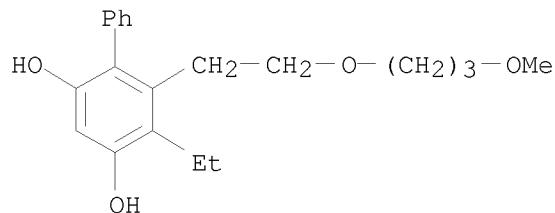


RN 860153-63-5 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(3-hydroxypropoxy)ethyl]- (CA INDEX NAME)

10584234

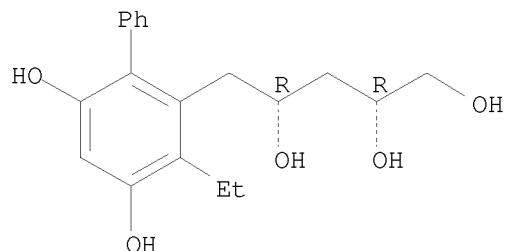


RN 860153-64-6 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(3-methoxypropoxy)ethyl]- (CA INDEX NAME)



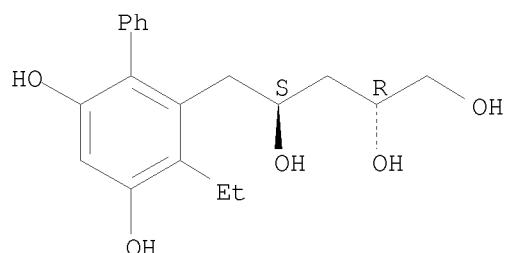
RN 860153-65-7 CAPLUS  
CN erythro-Pentitol, 3,5-dideoxy-5-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)- (9CI) (CA INDEX NAME)

Relative stereochemistry.



RN 860153-66-8 CAPLUS  
CN threo-Pentitol, 1,3-dideoxy-1-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)- (CA INDEX NAME)

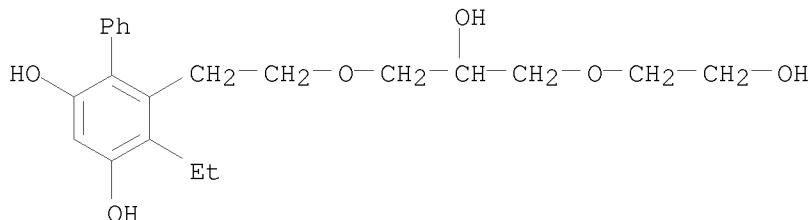
Relative stereochemistry.



10584234

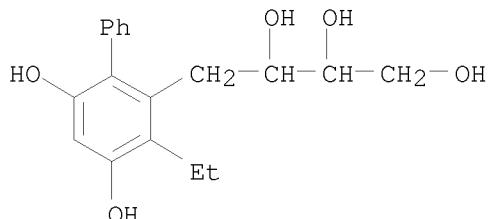
RN 860153-67-9 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-[2-hydroxy-3-(2-hydroxyethoxy)propoxy]ethyl]- (CA INDEX NAME)



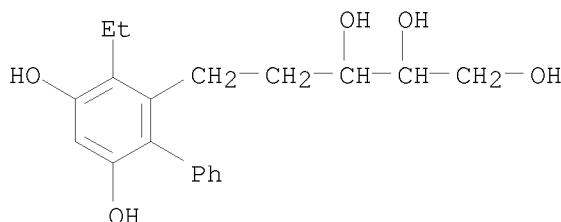
RN 860153-68-0 CAPLUS

CN 1,2,3-Butanetriol, 4-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)- (CA INDEX NAME)



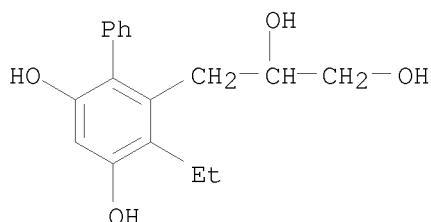
RN 860153-69-1 CAPLUS

CN Pentitol, 1,2-dideoxy-1-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)- (9CI) (CA INDEX NAME)



RN 860153-70-4 CAPLUS

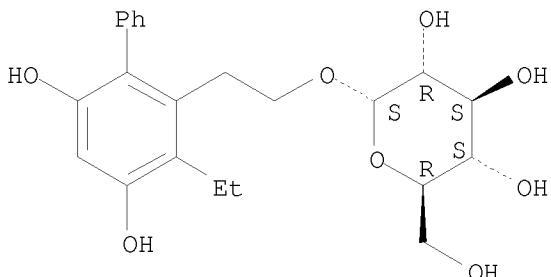
CN [1,1'-Biphenyl]-2,4-diol, 6-(2,3-dihydroxypropyl)-5-ethyl- (CA INDEX NAME)



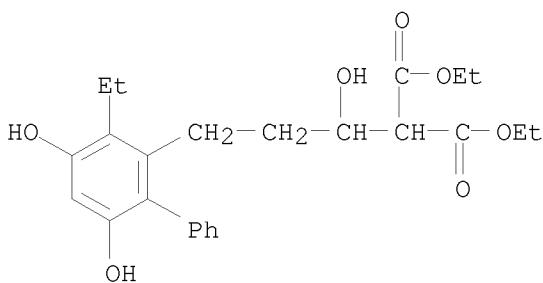
10584234

RN 860153-71-5 CAPLUS  
CN  $\alpha$ -D-Glucopyranoside, 2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl (CA INDEX NAME)

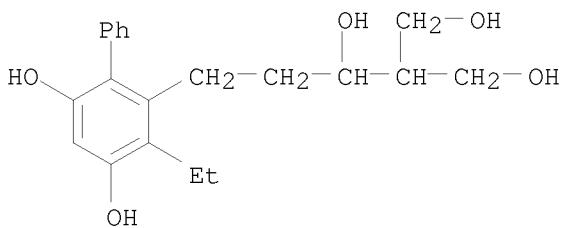
Absolute stereochemistry.



RN 860153-72-6 CAPLUS  
CN Propanedioic acid, [3-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)-1-hydroxypropyl]-, diethyl ester (9CI) (CA INDEX NAME)

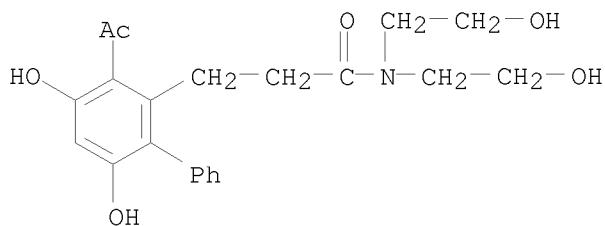


RN 860153-73-7 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 6-[3,5-dihydroxy-4-(hydroxymethyl)pentyl]-5-ethyl- (CA INDEX NAME)



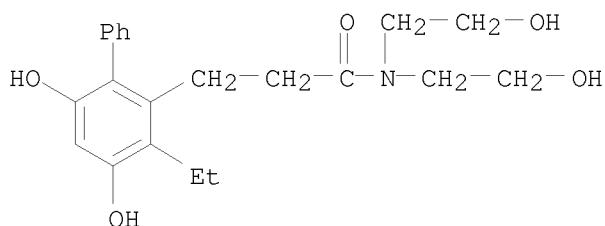
RN 860153-74-8 CAPLUS  
CN [1,1'-Biphenyl]-2-propanamide, 3-acetyl-4,6-dihydroxy-N,N-bis(2-hydroxyethyl)- (CA INDEX NAME)

10584234



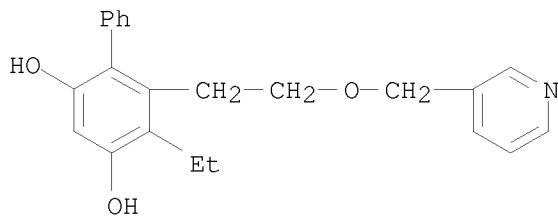
RN 860153-75-9 CAPLUS

CN [1,1'-Biphenyl]-2-propanamide, 3-ethyl-4,6-dihydroxy-N,N-bis(2-hydroxyethyl)- (CA INDEX NAME)



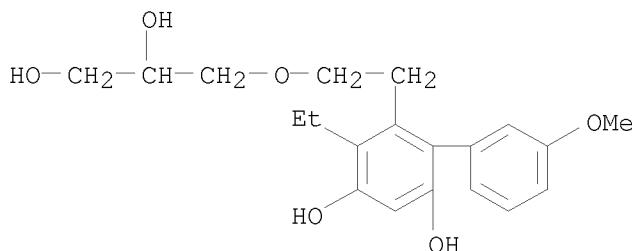
RN 860153-76-0 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(3-pyridinylmethoxy)ethyl]- (CA INDEX NAME)



RN 860153-77-1 CAPLUS

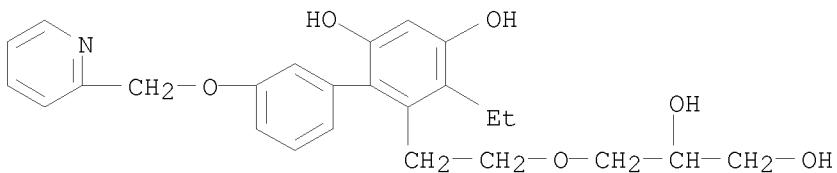
CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl-3'-methoxy- (CA INDEX NAME)



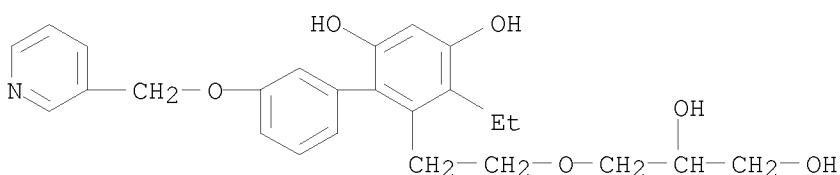
RN 860153-78-2 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl-3'-(2-pyridinylmethoxy)- (CA INDEX NAME)

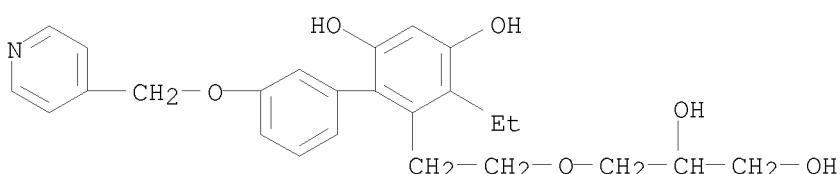
10584234



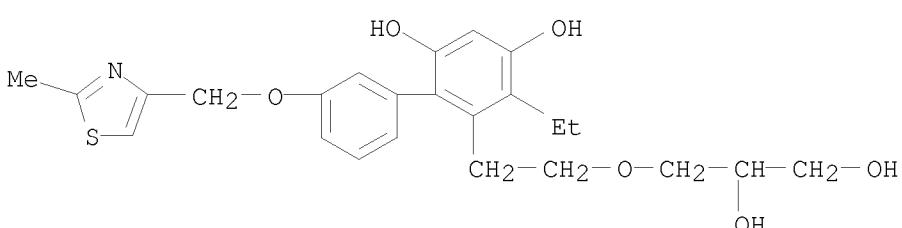
RN 860153-79-3 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl-3'-(3-pyridinylmethoxy)- (CA INDEX NAME)



RN 860153-80-6 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl-3'-(4-pyridinylmethoxy)- (CA INDEX NAME)

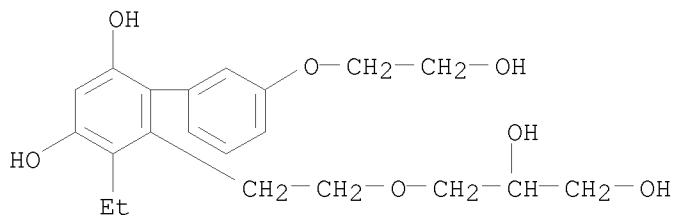


RN 860153-81-7 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl-3'-(2-methyl-4-thiazolylmethoxy)- (CA INDEX NAME)



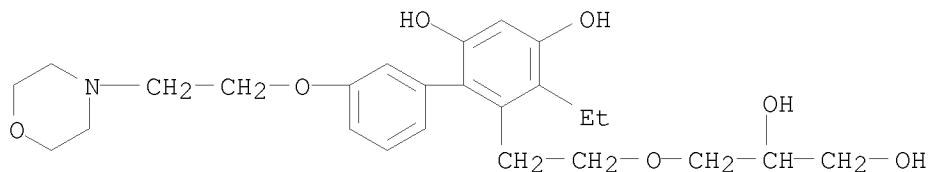
RN 860153-82-8 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl-3'-(2-hydroxyethoxy)- (CA INDEX NAME)

10584234



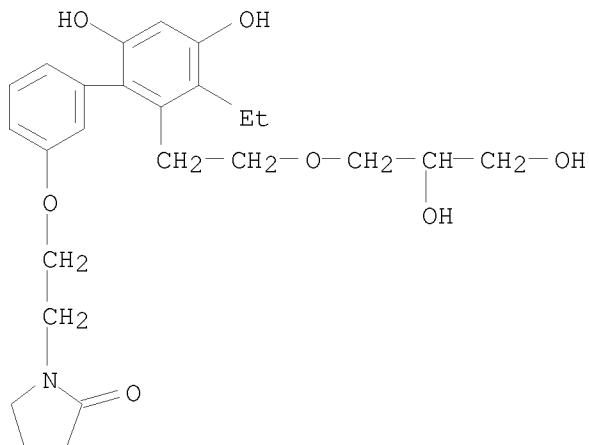
RN 860153-83-9 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl-3'-(2-(4-morpholinyl)ethoxy)- (CA INDEX NAME)



RN 860153-84-0 CAPLUS

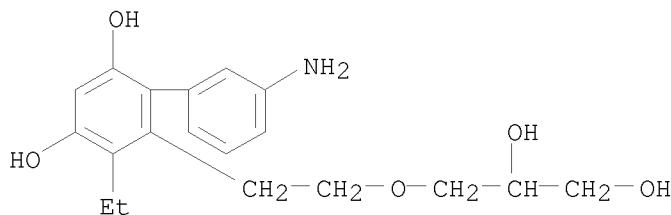
CN 2-Pyrrolidinone, 1-[2-[2-[2-(2,3-dihydroxypropoxy)ethyl]-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]oxy]ethyl- (CA INDEX NAME)



RN 860153-85-1 CAPLUS

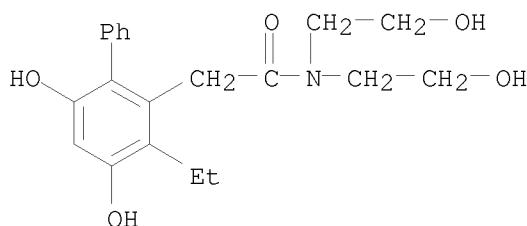
CN [1,1'-Biphenyl]-2,4-diol, 3'-amino-6-[2-(2,3-dihydroxypropoxy)ethyl]-5-ethyl- (CA INDEX NAME)

10584234



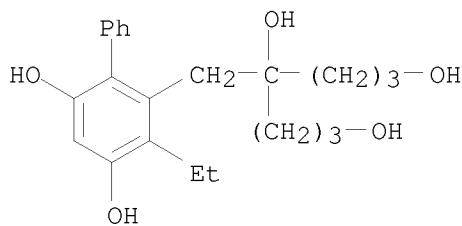
RN 860153-86-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-4,6-dihydroxy-N,N-bis(2-hydroxyethyl)-  
(CA INDEX NAME)



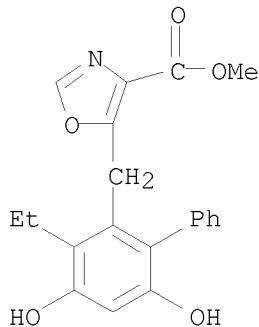
RN 860153-87-3 CAPLUS

CN 1,4,7-Heptanetriol, 4-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-  
(CA INDEX NAME)



RN 860153-88-4 CAPLUS

CN 4-Oxazolecarboxylic acid, 5-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, methyl ester (CA INDEX NAME)

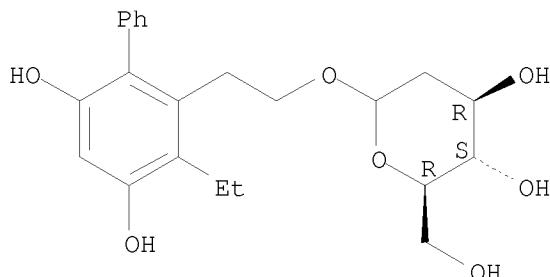


10584234

RN 860153-89-5 CAPLUS

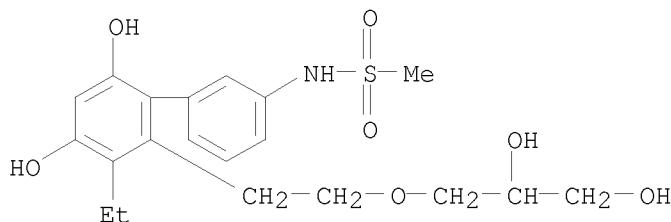
CN D-arabino-Hexopyranoside, 2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl 2-deoxy- (CA INDEX NAME)

Absolute stereochemistry.



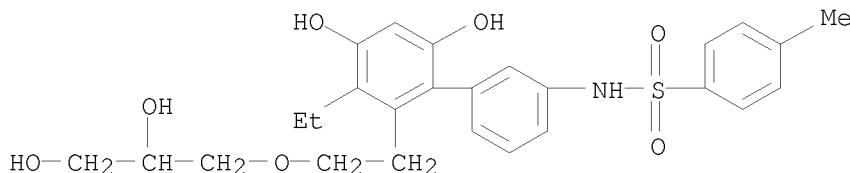
RN 860153-90-8 CAPLUS

CN Methanesulfonamide, N-[2'-(2-(2,3-dihydroxypropoxy)ethyl]-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860153-91-9 CAPLUS

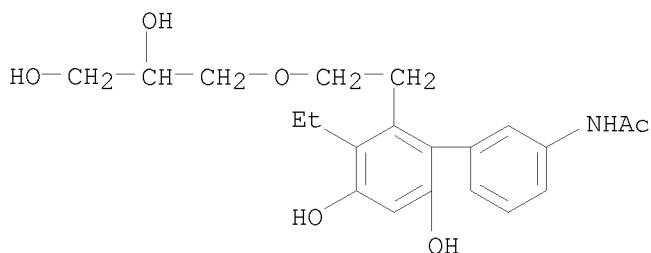
CN Benzenesulfonamide, N-[2'-(2-(2,3-dihydroxypropoxy)ethyl]-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]-4-methyl- (CA INDEX NAME)



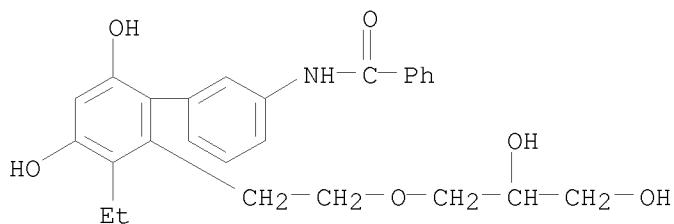
RN 860153-92-0 CAPLUS

CN Acetamide, N-[2'-(2-(2,3-dihydroxypropoxy)ethyl]-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

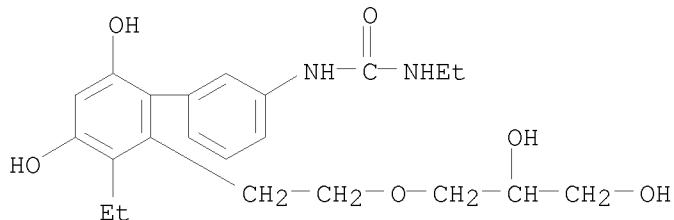
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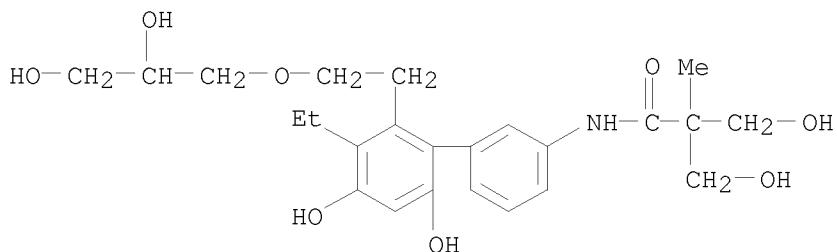
RN 860153-93-1 CAPLUS  
CN Benzamide, N-[2'-(2,3-dihydroxypropoxy)ethyl]-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]-(CA INDEX NAME)



RN 860153-94-2 CAPLUS  
CN Urea, N-[2'-(2-(2,3-dihydroxypropoxy)ethyl)-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]-N'-ethyl- (CA INDEX NAME)



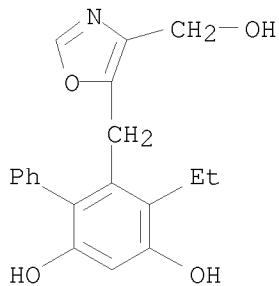
RN 860153-95-3 CAPLUS  
CN Propanamide, N-[2'-(2-(2,3-dihydroxypropoxy)ethyl)-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]-3-hydroxy-2-(hydroxymethyl)-2-methyl- (CA INDEX NAME)



RN 860153-96-4 CAPLUS

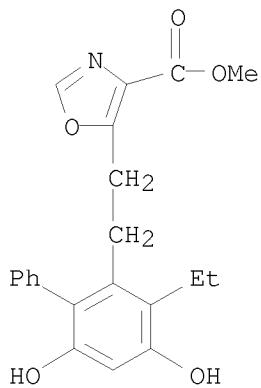
10584234

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[4-(hydroxymethyl)-5-oxazolyl]methyl-  
(CA INDEX NAME)



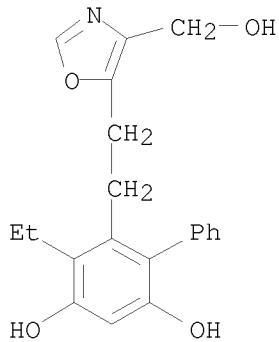
RN 860153-97-5 CAPLUS

CN 4-Oxazolecarboxylic acid, 5-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl]-, methyl ester (CA INDEX NAME)



RN 860153-98-6 CAPLUS

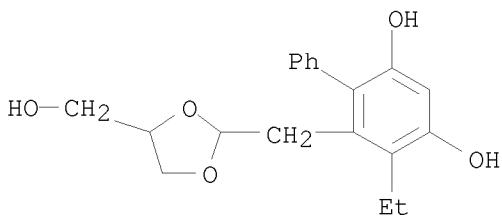
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-[4-(hydroxymethyl)-5-oxazolyl]ethyl]- (CA INDEX NAME)



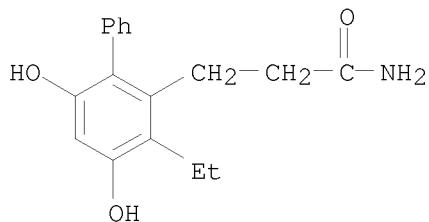
RN 860153-99-7 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[4-(hydroxymethyl)-1,3-dioxolan-2-yl]methyl- (CA INDEX NAME)

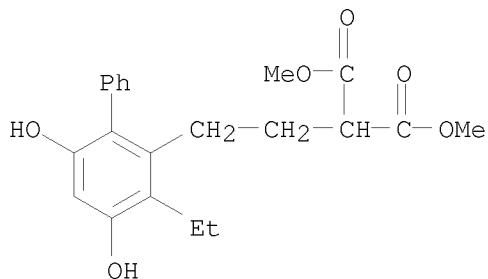
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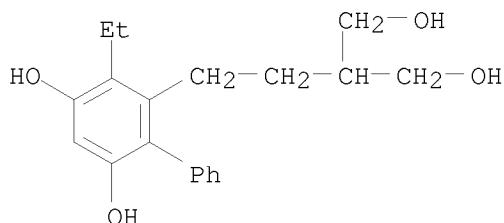
RN 860154-00-3 CAPLUS  
CN [1,1'-Biphenyl]-2-propanamide, 3-ethyl-4,6-dihydroxy- (CA INDEX NAME)



RN 860154-01-4 CAPLUS  
CN Propanedioic acid, [2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl]-, dimethyl ester (9CI) (CA INDEX NAME)



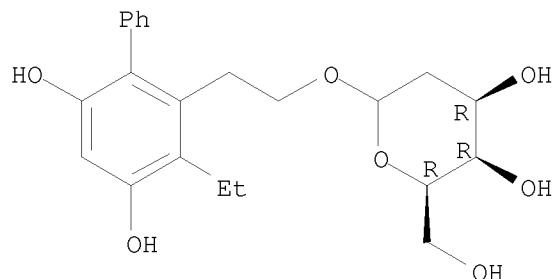
RN 860154-03-6 CAPLUS  
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[4-hydroxy-3-(hydroxymethyl)butyl]- (CA INDEX NAME)



RN 860154-04-7 CAPLUS  
CN D-lyxo-Hexopyranoside, 2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl 2-deoxy- (CA INDEX NAME)

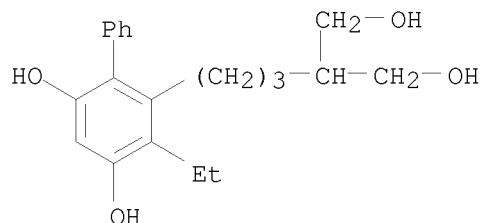
10584234

Absolute stereochemistry.



RN 860154-05-8 CAPLUS

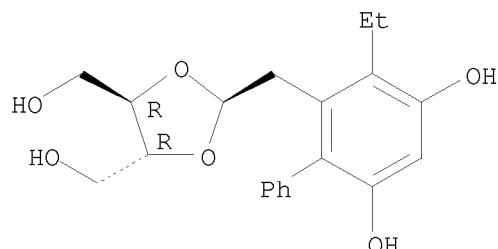
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[5-hydroxy-4-(hydroxymethyl)pentyl]- (CA INDEX NAME)



RN 860154-06-9 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

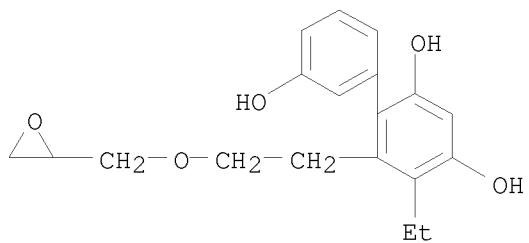
Absolute stereochemistry.



RN 860154-07-0 CAPLUS

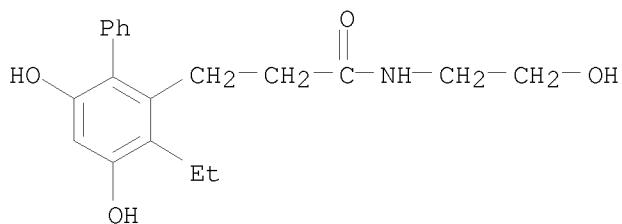
CN [1,1'-Biphenyl]-2,3',4-triol, 5-ethyl-6-[2-(oxiranylmethoxy)ethyl]- (9CI) (CA INDEX NAME)

10584234



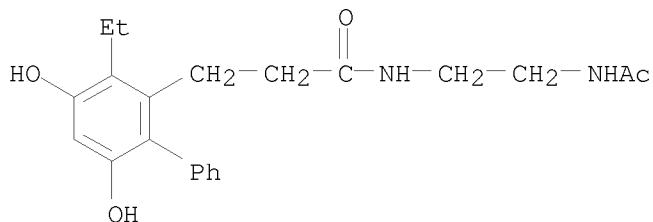
RN 860154-08-1 CAPLUS

CN [1,1'-Biphenyl]-2-propanamide, 3-ethyl-4,6-dihydroxy-N-(2-hydroxyethyl)-  
(CA INDEX NAME)



RN 860154-09-2 CAPLUS

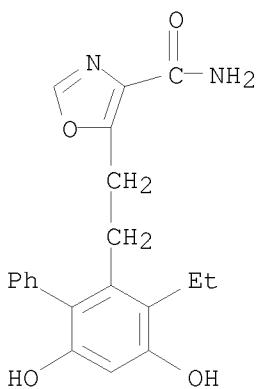
CN [1,1'-Biphenyl]-2-propanamide, N-[2-(acetylamino)ethyl]-3-ethyl-4,6-  
dihydroxy- (CA INDEX NAME)



RN 860154-10-5 CAPLUS

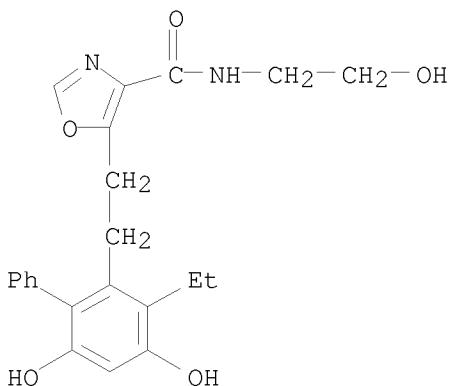
CN 4-Oxazolecarboxamide, 5-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-  
yl)ethyl]- (CA INDEX NAME)

10584234



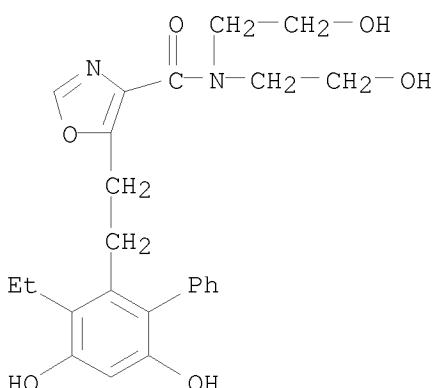
RN 860154-11-6 CAPLUS

CN 4-Oxazolecarboxamide, 5-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl]-N-(2-hydroxyethyl)- (CA INDEX NAME)



RN 860154-12-7 CAPLUS

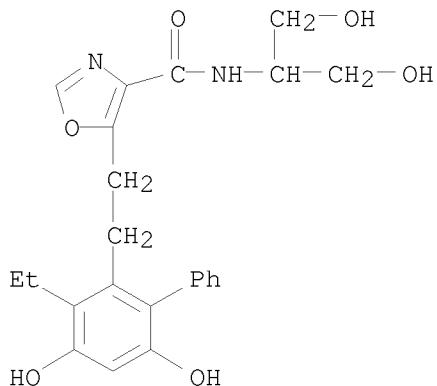
CN 4-Oxazolecarboxamide, 5-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl]-N,N-bis(2-hydroxyethyl)- (CA INDEX NAME)



RN 860154-13-8 CAPLUS

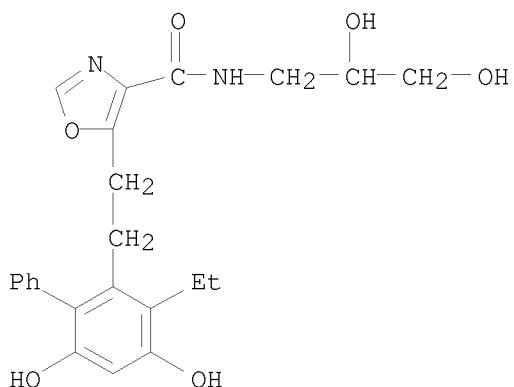
10584234

CN 4-Oxazolecarboxamide, 5-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl]-N-[2-hydroxy-1-(hydroxymethyl)ethyl]- (CA INDEX NAME)



RN 860154-14-9 CAPLUS

CN 4-Oxazolecarboxamide, N-(2,3-dihydroxypropyl)-5-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl]- (CA INDEX NAME)

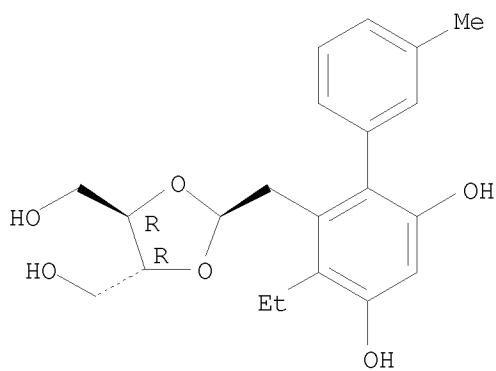


RN 860154-15-0 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (2α,4α,5β)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

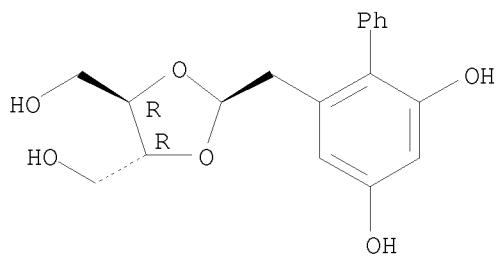
10584234



RN 860154-16-1 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

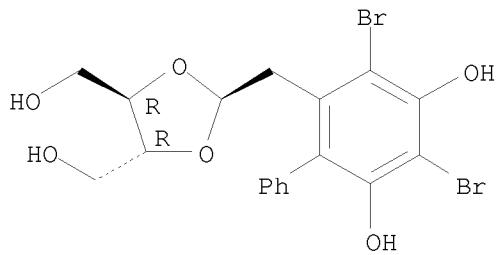
Absolute stereochemistry.



RN 860154-17-2 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3,5-dibromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

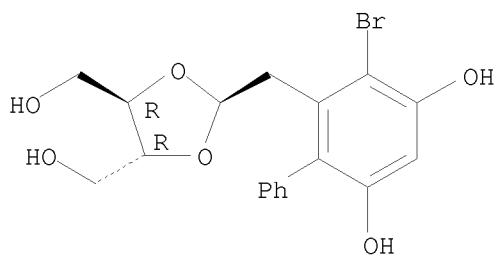


RN 860154-18-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

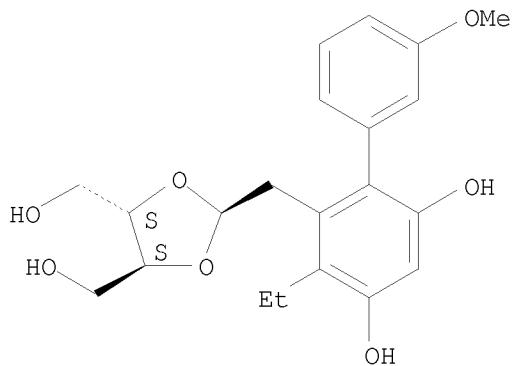
10584234



RN 860154-19-4 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methoxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

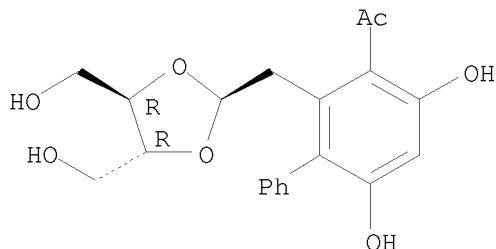
Absolute stereochemistry.



RN 860154-20-7 CAPLUS

CN Ethanone, 1-[2-[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-4,6-dihydroxy[1,1'-biphenyl]-3-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

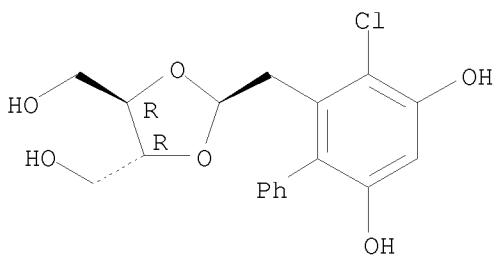


RN 860154-66-1 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-chloro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

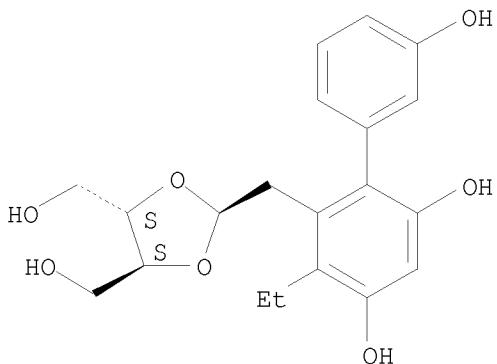
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RN 860154-67-2 CAPLUS

CN [1,1'-Biphenyl]-2,3',4-triol, 6-[[ $(2\alpha,4\alpha,5\beta)$ -4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (9CI) (CA INDEX NAME)

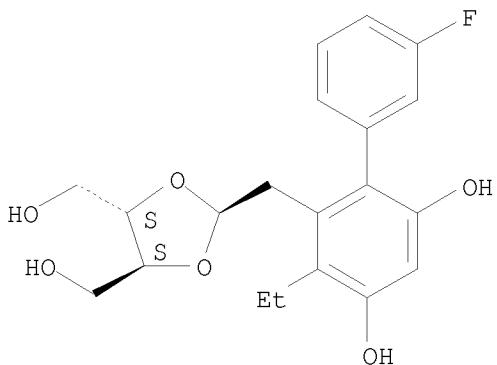
Absolute stereochemistry.



RN 860154-68-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[ $(3\text{-ethyl}-3'\text{-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl})$ methyl]-, ( $2\alpha,4\alpha,5\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

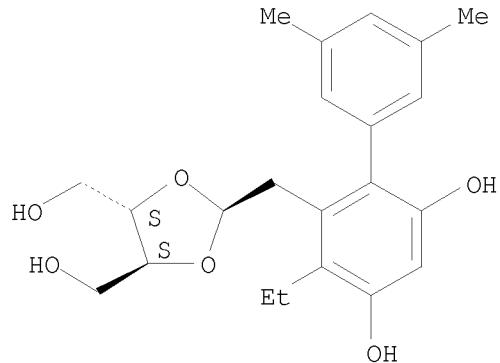


RN 860154-69-4 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[ $(3\text{-ethyl}-4,6\text{-dihydroxy-3',5'-dimethyl[1,1'-biphenyl]-2-yl})$ methyl]-, ( $2\alpha,4\alpha,5\beta$ )- (9CI) (CA INDEX NAME)

10584234

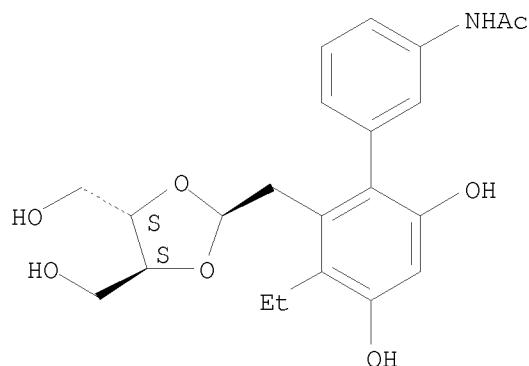
Absolute stereochemistry.



RN 860154-70-7 CAPLUS

CN Acetamide, N-[2'-([(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy[1,1'-biphenyl]-3-yl]- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

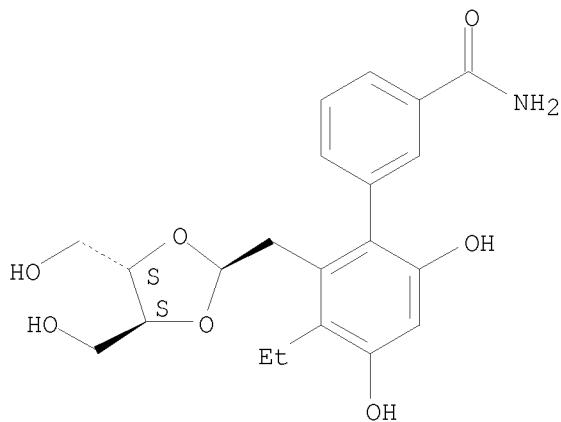


RN 860154-71-8 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-([(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

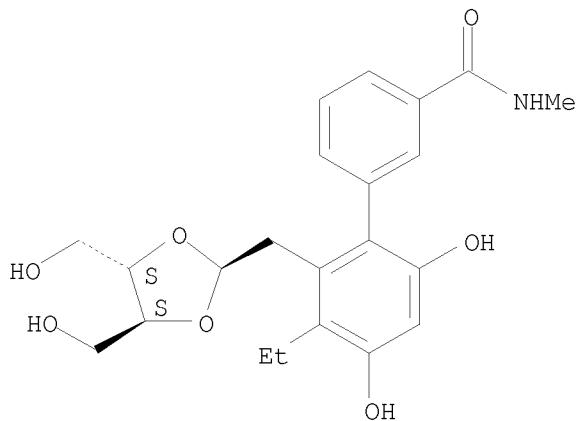
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RN 860154-72-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

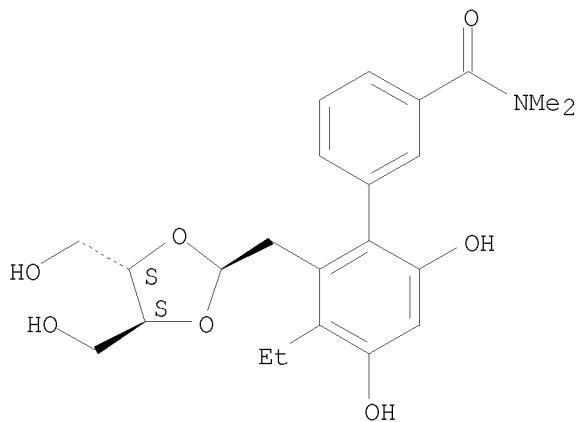


RN 860154-73-0 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N,N-dimethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

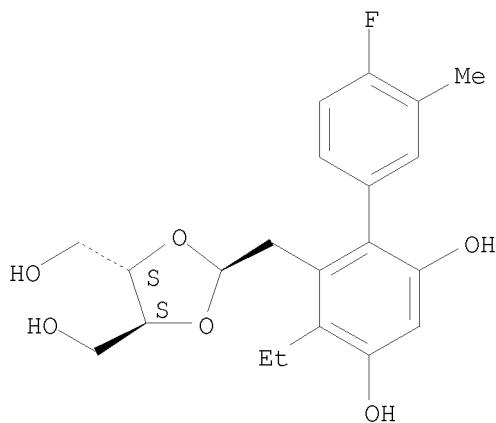
10584234



RN 860154-74-1 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[ (3-ethyl-4'-fluoro-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

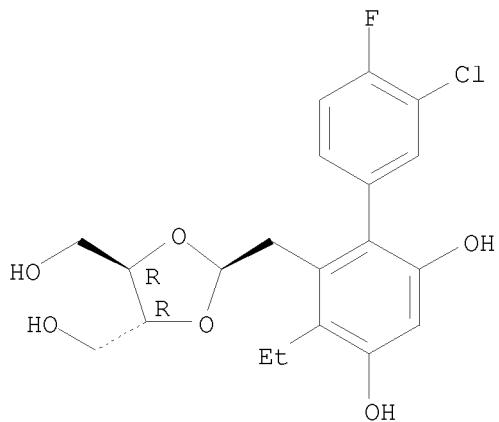


RN 860154-75-2 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[ (3'-chloro-3-ethyl-4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

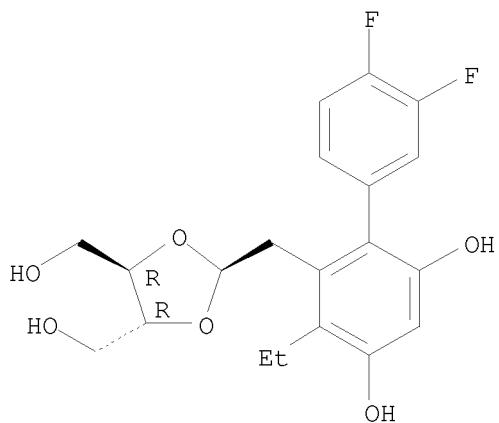
10584234



RN 860154-76-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[ (3-ethyl-3', 4'-difluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.

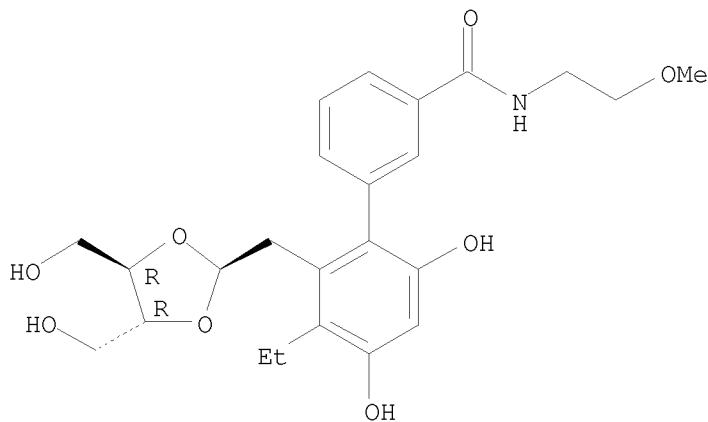


RN 860154-77-4 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-(2-methoxyethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

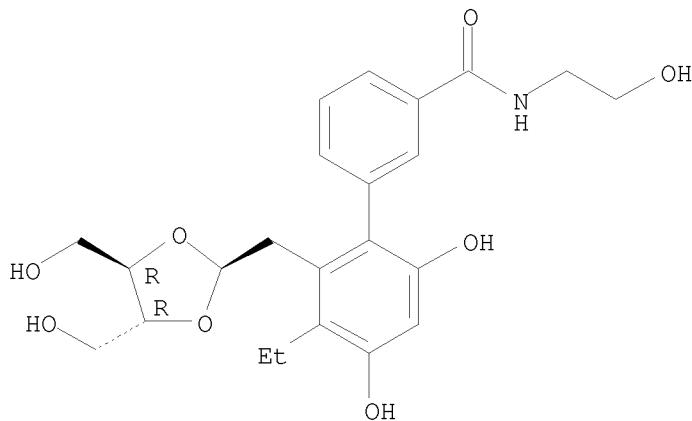
10584234



RN 860154-78-5 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-(2-hydroxyethyl)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

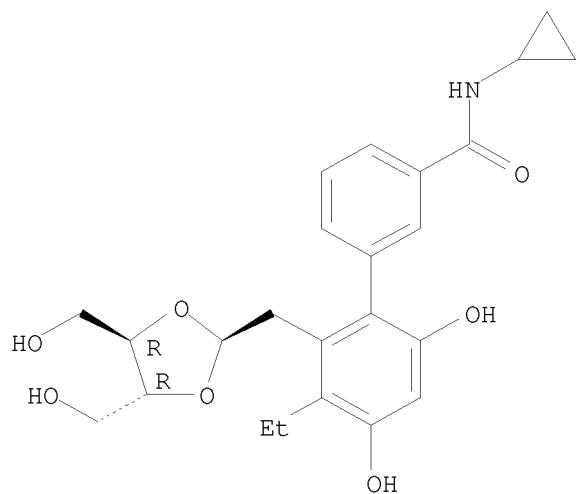


RN 860154-79-6 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-N-cyclopropyl-3'-ethyl-4',6'-dihydroxy- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

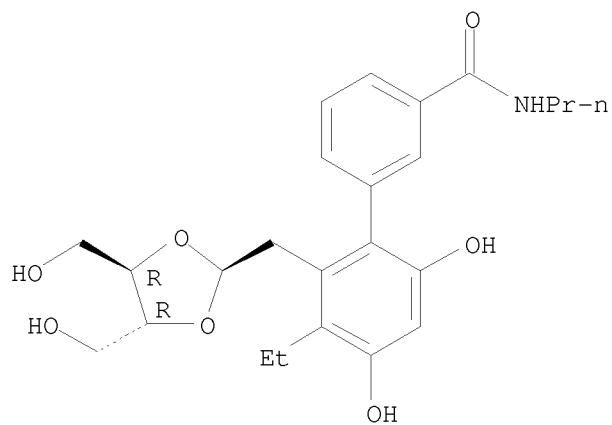
10584234



RN 860154-80-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2*α*,4*α*,5*β*)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

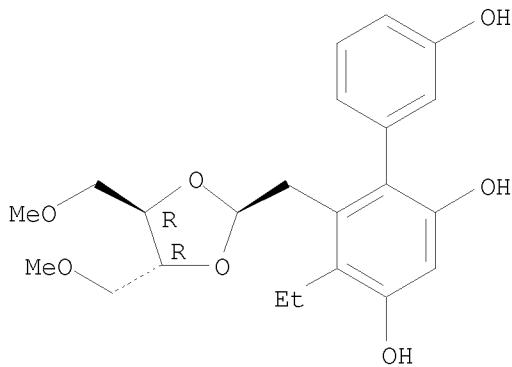


RN 860154-81-0 CAPLUS

CN [1,1'-Biphenyl]-2,3',4-triol, 6-[(2*α*,4*α*,5*β*)-4,5-bis(methoxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

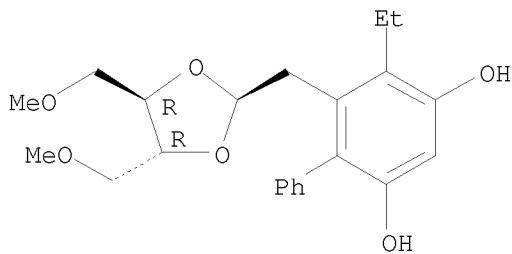
10584234



RN 860154-82-1 CAPLUS

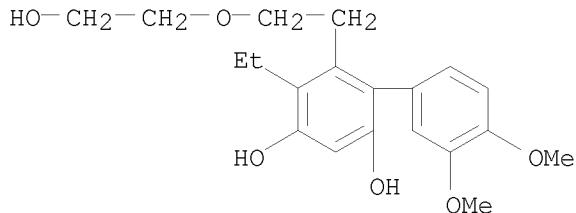
CN [1,1'-Biphenyl]-2,4-diol, 6-[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(methoxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 860154-83-2 CAPLUS

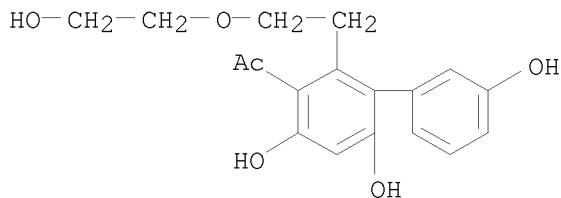
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(2-hydroxyethoxy)ethyl]-3',4'-dimethoxy- (CA INDEX NAME)



RN 860154-84-3 CAPLUS

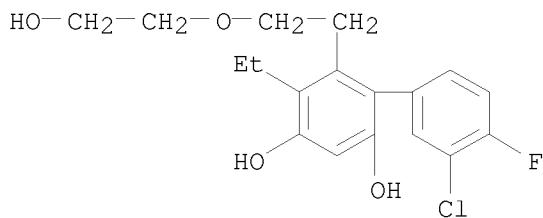
CN Ethanone, 1-[3',4,6-trihydroxy-2-[2-(2-hydroxyethoxy)ethyl][1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

10584234



RN 860154-85-4 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 3'-chloro-5-ethyl-4'-fluoro-6-[2-(2-hydroxyethoxy)ethyl]- (CA INDEX NAME)



IT 860154-86-5P 860154-87-6P 860154-88-7P

860154-89-8P 860154-90-1P 860154-91-2P

860154-92-3P 860154-93-4P 860154-94-5P

860154-95-6P 860154-96-7P 860154-97-8P

860154-98-9P 860154-99-0P 860155-00-6P

860174-19-2P 860174-21-6P 860174-22-7P

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860293-39-6P 860293-40-9P 860293-41-0P

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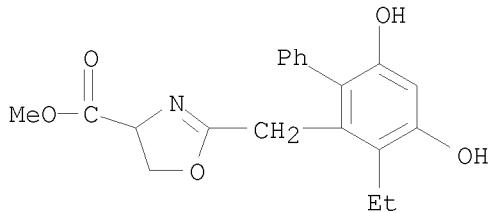
860293-48-7P 860293-62-5P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(benzene derivs. as Hsp90 family protein inhibitors and antitumor agents)

RN 860154-86-5 CAPLUS

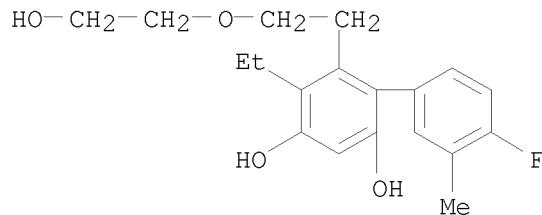
CN 4-Oxazolecarboxylic acid, 2-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-4,5-dihydro-, methyl ester (CA INDEX NAME)



RN 860154-87-6 CAPLUS

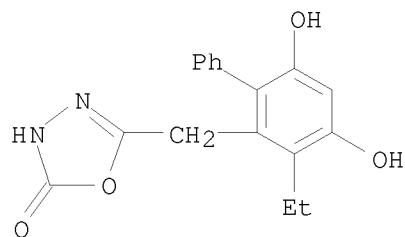
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-4'-fluoro-6-[2-(2-hydroxyethoxy)ethyl]-3'-methyl- (CA INDEX NAME)

10584234



RN 860154-88-7 CAPLUS

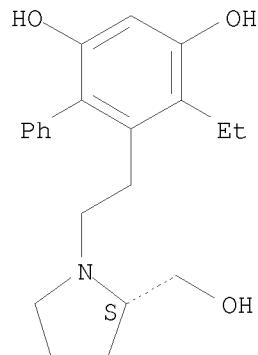
CN 1,3,4-Oxadiazol-2(3H)-one, 5-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]- (CA INDEX NAME)



RN 860154-89-8 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-[(2S)-2-(hydroxymethyl)-1-pyrrolidinyl]ethyl]- (CA INDEX NAME)

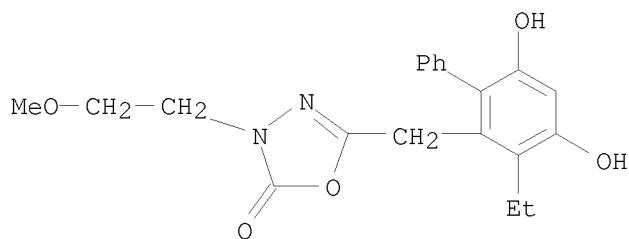
Absolute stereochemistry.



RN 860154-90-1 CAPLUS

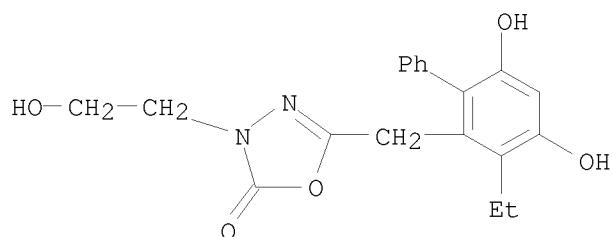
CN 1,3,4-Oxadiazol-2(3H)-one, 5-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-3-(2-methoxyethyl)- (CA INDEX NAME)

10584234



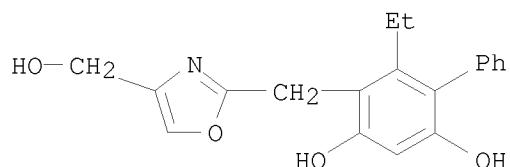
RN 860154-91-2 CAPLUS

CN 1,3,4-Oxadiazol-2(3H)-one, 5-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-3-(2-hydroxyethyl)- (CA INDEX NAME)



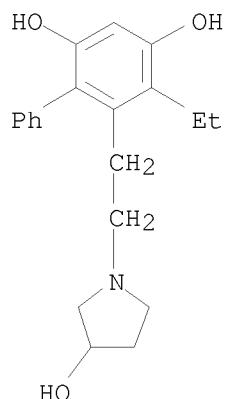
RN 860154-92-3 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 6-ethyl-5-[[4-(hydroxymethyl)-2-oxazolyl]methyl]- (CA INDEX NAME)



RN 860154-93-4 CAPLUS

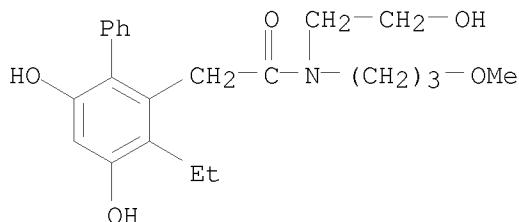
CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(3-hydroxy-1-pyrrolidinyl)ethyl]- (CA INDEX NAME)



10584234

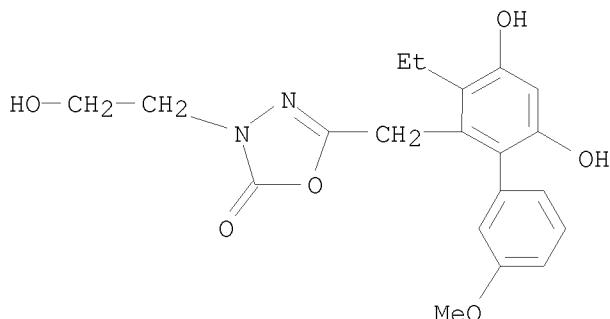
RN 860154-94-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-4,6-dihydroxy-N-(2-hydroxyethyl)-N-(3-methoxypropyl)- (CA INDEX NAME)



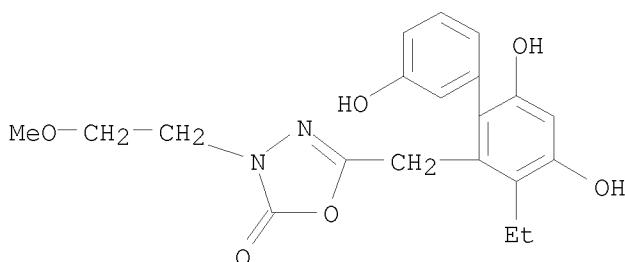
RN 860154-95-6 CAPLUS

CN 1,3,4-Oxadiazol-2(3H)-one, 5-[(3-ethyl-4,6-dihydroxy-3'-methoxy[1,1'-biphenyl]-2-yl)methyl]-3-(2-hydroxyethyl)- (CA INDEX NAME)



RN 860154-96-7 CAPLUS

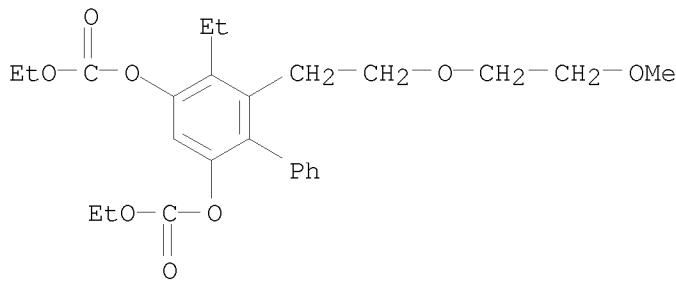
CN 1,3,4-Oxadiazol-2(3H)-one, 5-[(3-ethyl-3',4,6-trihydroxy[1,1'-biphenyl]-2-yl)methyl]-3-(2-methoxyethyl)- (CA INDEX NAME)



RN 860154-97-8 CAPLUS

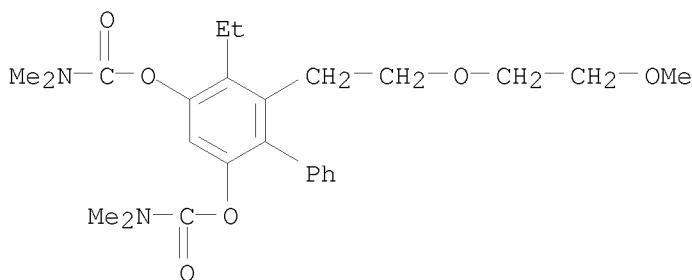
CN Carbonic acid, 5-ethyl-6-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-2,4-diyl diethyl ester (9CI) (CA INDEX NAME)

10584234



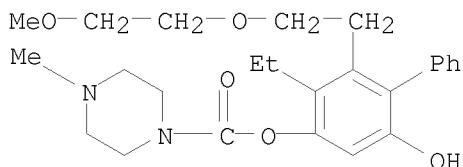
RN 860154-98-9 CAPLUS

CN Carbamic acid, dimethyl-, 5-ethyl-6-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-2,4-diyl ester (9CI) (CA INDEX NAME)



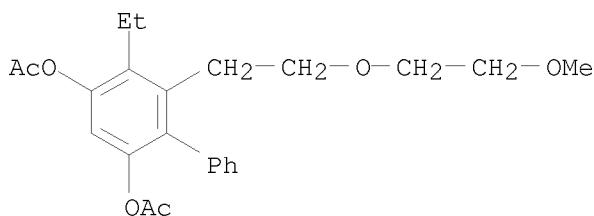
RN 860154-99-0 CAPLUS

CN 1-Piperazinecarboxylic acid, 4-methyl-, 3-ethyl-6-hydroxy-2-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-4-yl ester (CA INDEX NAME)



RN 860155-00-6 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-ethyl-6-[2-(2-methoxyethoxy)ethyl]-, diacetate (9CI) (CA INDEX NAME)

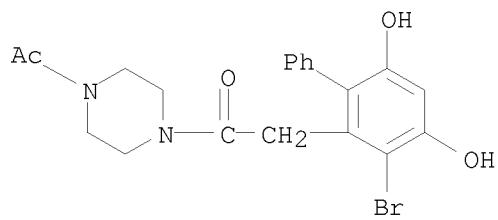


RN 860174-19-2 CAPLUS

CN Piperazine, 1-acetyl-4-[(3-bromo-4,6-dihydroxy[1,1'-biphenyl]-2-yl)acetyl]-

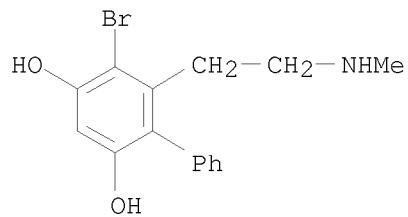
10584234

(9CI) (CA INDEX NAME)



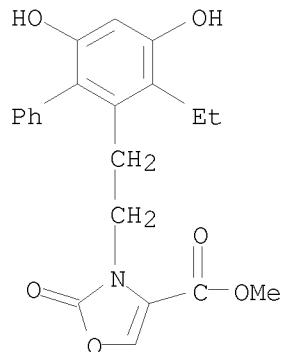
RN 860174-21-6 CAPLUS

CN [1,1'-Biphenyl]-2,4-diol, 5-bromo-6-[2-(methylamino)ethyl]- (CA INDEX NAME)



RN 860174-22-7 CAPLUS

CN 4-Oxazolecarboxylic acid, 3-[2-(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)ethyl]-2,3-dihydro-2-oxo-, methyl ester (CA INDEX NAME)

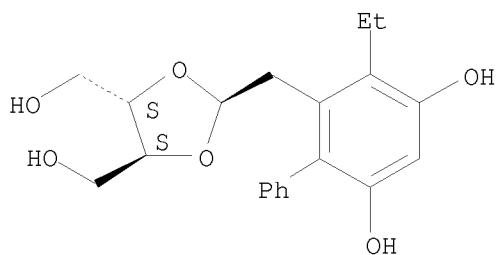


RN 860293-36-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

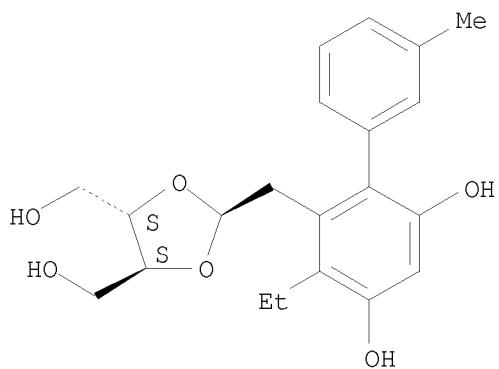
10584234



RN 860293-37-4 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

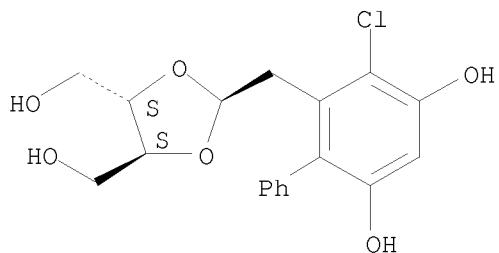
Absolute stereochemistry.



RN 860293-38-5 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-chloro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

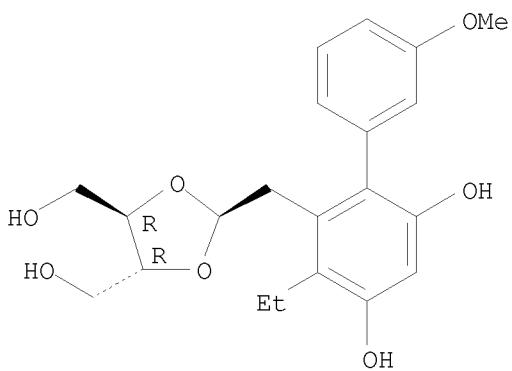


RN 860293-39-6 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy-3'-methoxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

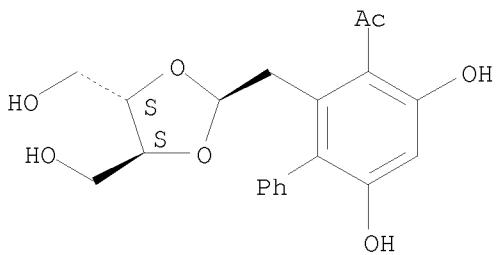
Absolute stereochemistry.

10584234



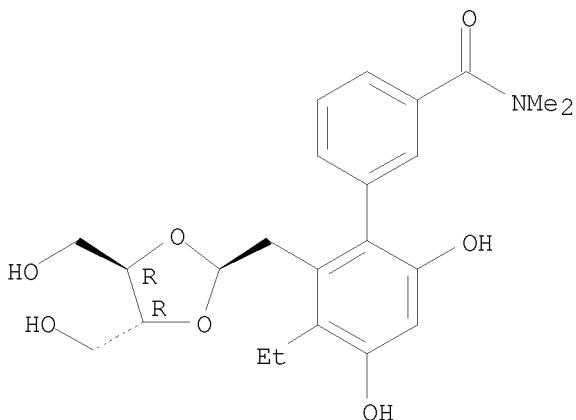
RN 860293-40-9 CAPLUS  
CN Ethanone, 1-[2-[(4S,5S)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-4,6-dihydroxy[1,1'-biphenyl]-3-yl]-(CA INDEX NAME)

Absolute stereochemistry.



RN 860293-41-0 CAPLUS  
CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N,N-dimethyl- (CA INDEX NAME)

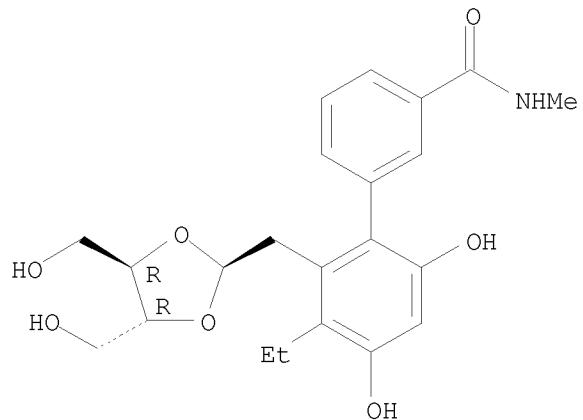
Absolute stereochemistry.



RN 860293-42-1 CAPLUS  
CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy-N-methyl- (CA INDEX NAME)

10584234

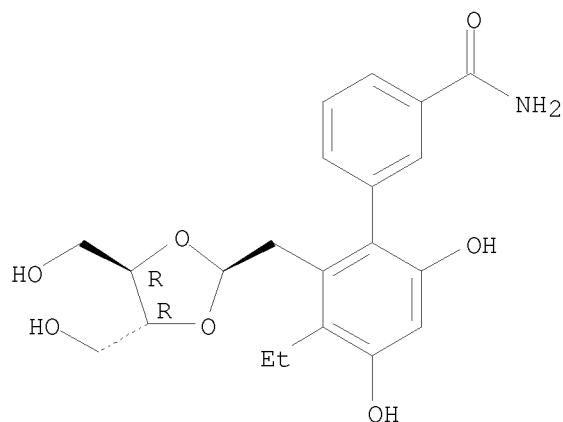
Absolute stereochemistry.



RN 860293-43-2 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-dihydroxy- (CA INDEX NAME)

Absolute stereochemistry.

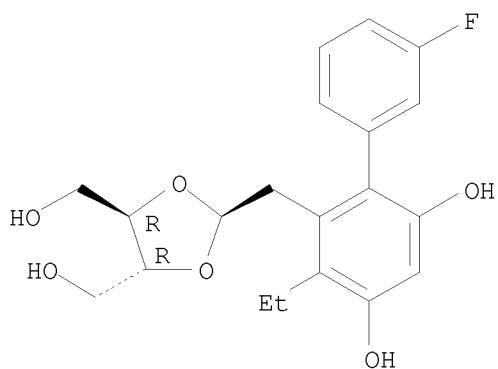


RN 860293-44-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-3'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.

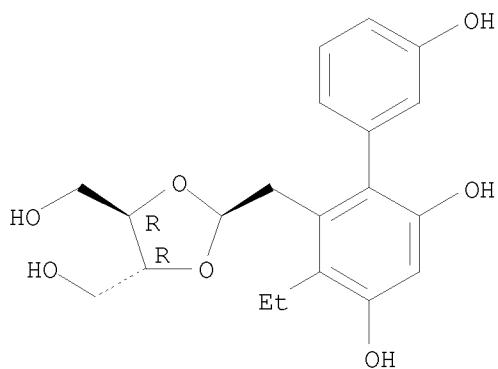
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RN 860293-45-4 CAPLUS

CN [1,1'-Biphenyl]-2,3',4-triol, 6-[[[(4R,5R)-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-5-ethyl- (CA INDEX NAME)

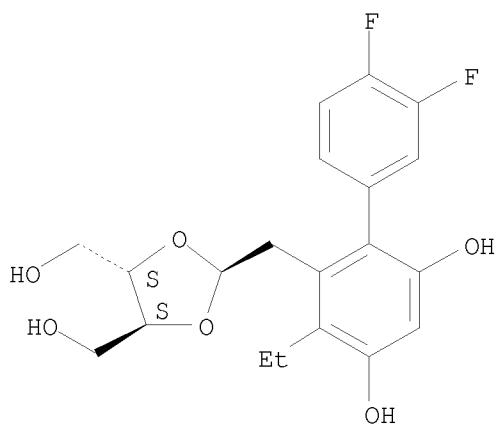
Absolute stereochemistry.



RN 860293-46-5 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-3',4'-difluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

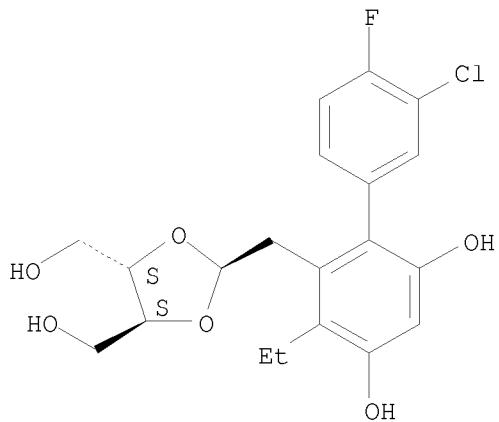


10584234

RN 860293-47-6 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3'-chloro-3-ethyl-4'-fluoro-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

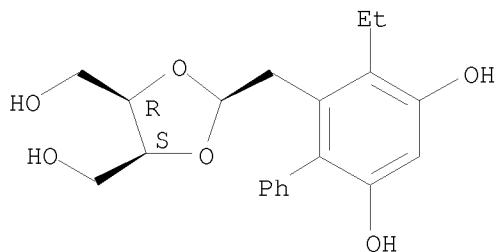
Absolute stereochemistry.



RN 860293-48-7 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\alpha$ )- (9CI) (CA INDEX NAME)

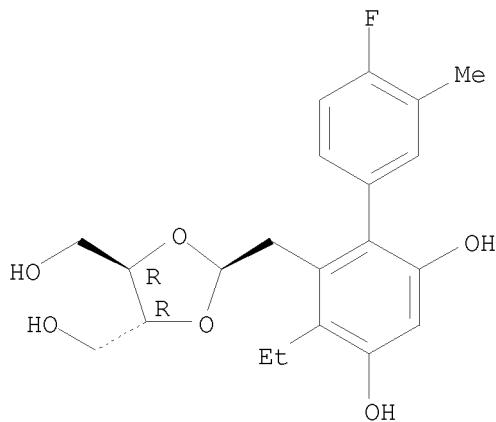
Relative stereochemistry.



RN 860293-62-5 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(3-ethyl-4'-fluoro-4,6-dihydroxy-3'-methyl[1,1'-biphenyl]-2-yl)methyl]-, (4R,5R)- (CA INDEX NAME)

Absolute stereochemistry.



IT	819812-46-9P	819812-47-0P	819812-48-1P
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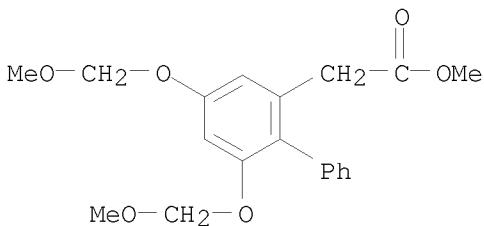
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860157-44-4P 860157-45-5P 860157-46-6P  
860157-47-7P 860157-48-8P 860157-49-9P  
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860157-72-8P 860157-73-9P 860157-75-1P  
860157-76-2P 860157-77-3P 860157-78-4P  
860157-79-5P 860157-80-8P 860157-81-9P  
860157-85-3P 860157-86-4P 860157-87-5P  
860158-52-7P 860158-53-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(benzene derivs. as Hsp90 family protein inhibitors and antitumor agents)

RN 819812-46-9 CAPLUS

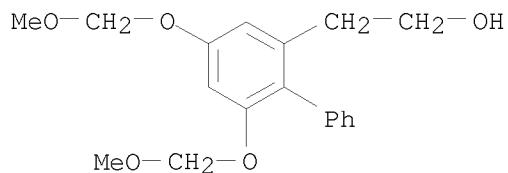
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 819812-47-0 CAPLUS

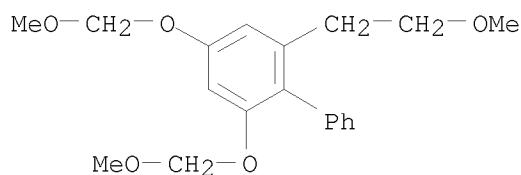
CN [1,1'-Biphenyl]-2-ethanol, 4,6-bis(methoxymethoxy)- (CA INDEX NAME)

10584234



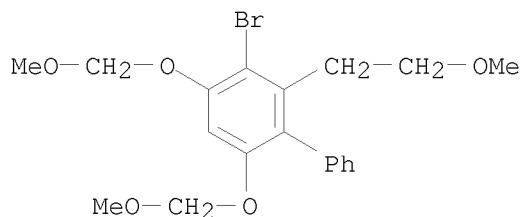
RN 819812-48-1 CAPLUS

CN 1,1'-Biphenyl, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



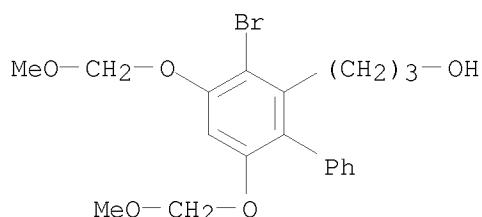
RN 819812-49-2 CAPLUS

CN 1,1'-Biphenyl, 3-bromo-2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860152-86-9 CAPLUS

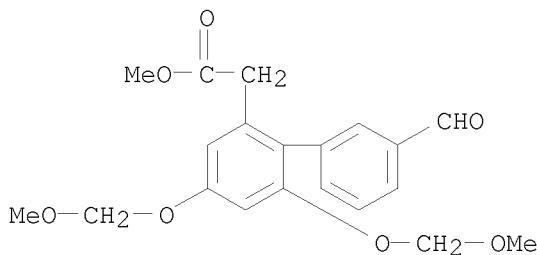
CN [1,1'-Biphenyl]-2-propanol, 3-bromo-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860155-03-9 CAPLUS

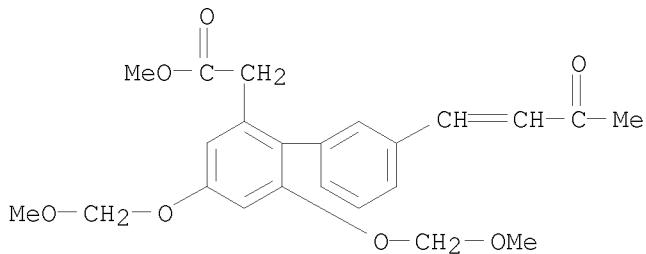
CN [1,1'-Biphenyl]-2-acetic acid, 3'-formyl-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)

10584234



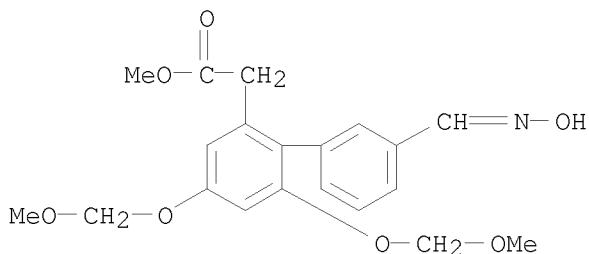
RN 860155-04-0 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-3'-(3-oxo-1-but enyl)-, methyl ester (9CI) (CA INDEX NAME)



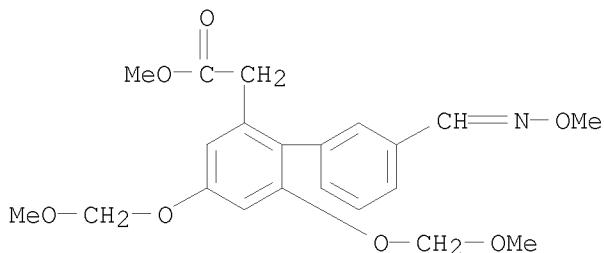
RN 860155-05-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3'-[{(hydroxyimino)methyl]-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-06-2 CAPLUS

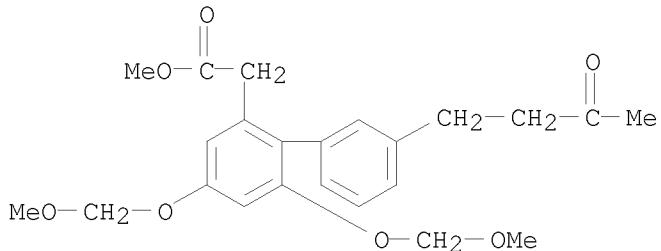
CN [1,1'-Biphenyl]-2-acetic acid, 3'-[{(methoxyimino)methyl]-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



10584234

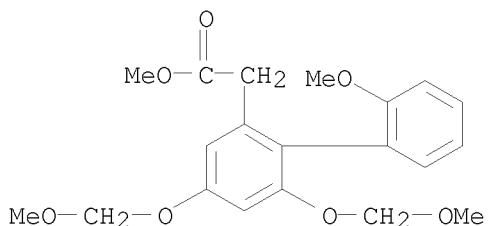
RN 860155-07-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-3'-(3-oxobutyl)-, methyl ester (CA INDEX NAME)



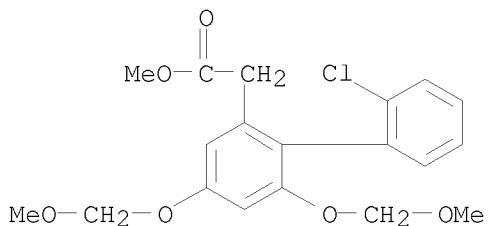
RN 860155-08-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 2'-methoxy-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-09-5 CAPLUS

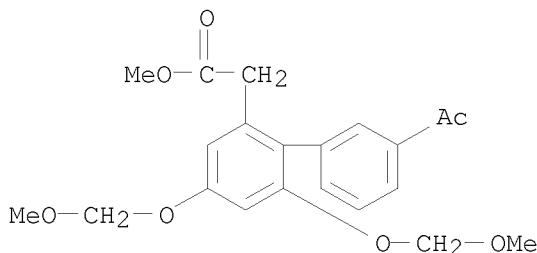
CN [1,1'-Biphenyl]-2-acetic acid, 2'-chloro-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-10-8 CAPLUS

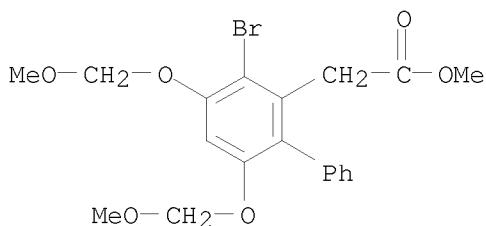
CN [1,1'-Biphenyl]-2-acetic acid, 3'-acetyl-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)

10584234



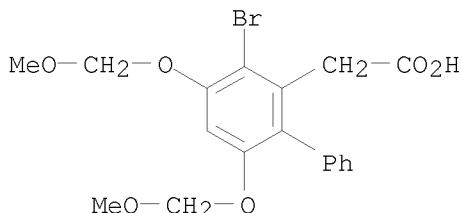
RN 860155-11-9 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-bromo-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



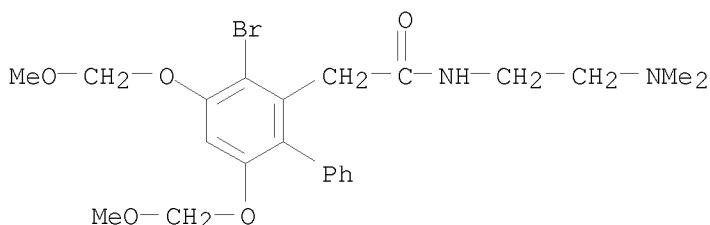
RN 860155-12-0 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-bromo-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860155-13-1 CAPLUS

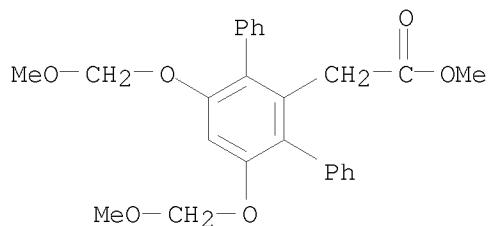
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-[2-(dimethylamino)ethyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



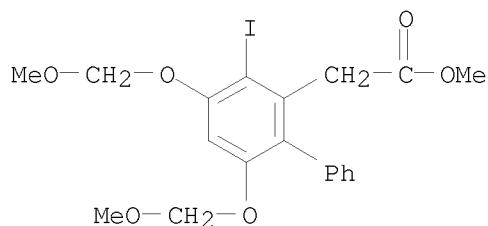
RN 860155-14-2 CAPLUS

CN [1,1':3',1''-Terphenyl]-2'-acetic acid, 4',6'-bis(methoxymethoxy)-, methyl ester (9CI) (CA INDEX NAME)

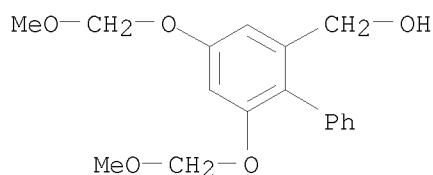
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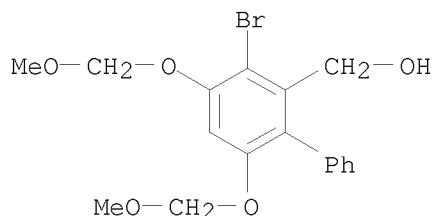
RN 860155-15-3 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3-iodo-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-16-4 CAPLUS  
CN [1,1'-Biphenyl]-2-methanol, 4,6-bis(methoxymethoxy)- (CA INDEX NAME)

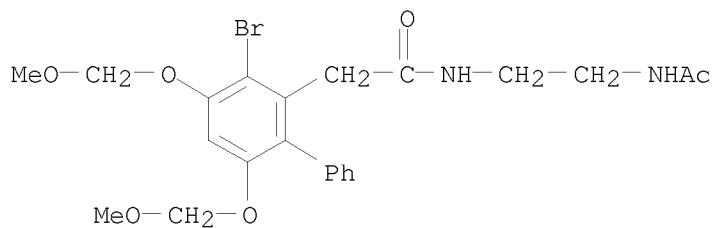


RN 860155-17-5 CAPLUS  
CN [1,1'-Biphenyl]-2-methanol, 3-bromo-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



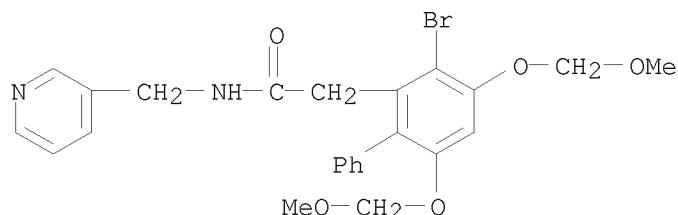
RN 860155-18-6 CAPLUS  
CN [1,1'-Biphenyl]-2-acetamide, N-[2-(acetylamino)ethyl]-3-bromo-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

10584234



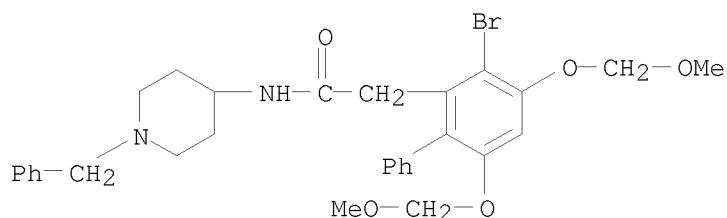
RN 860155-19-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-(3-pyridinylmethyl)- (CA INDEX NAME)



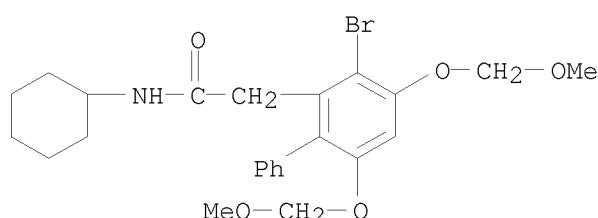
RN 860155-20-0 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-[1-(phenylmethyl)-4-piperidinyl]- (CA INDEX NAME)



RN 860155-21-1 CAPLUS

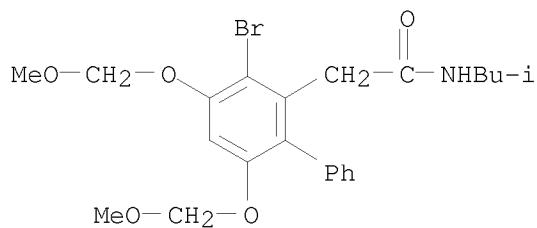
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-cyclohexyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860155-22-2 CAPLUS

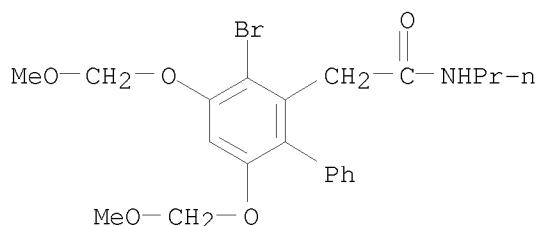
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-(2-methylpropyl)- (CA INDEX NAME)

10584234



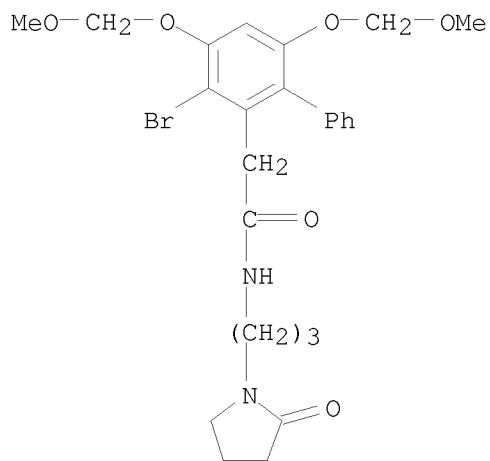
RN 860155-23-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-propyl-  
(CA INDEX NAME)



RN 860155-24-4 CAPLUS

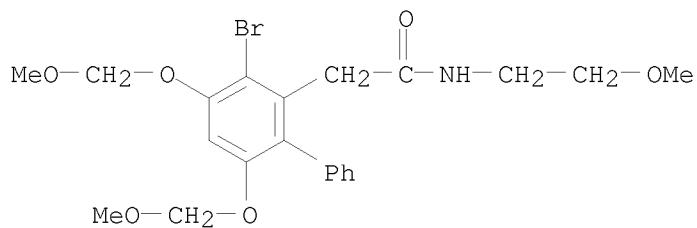
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-[3-(2-oxo-1-pyrrolidinyl)propyl]- (CA INDEX NAME)



RN 860155-25-5 CAPLUS

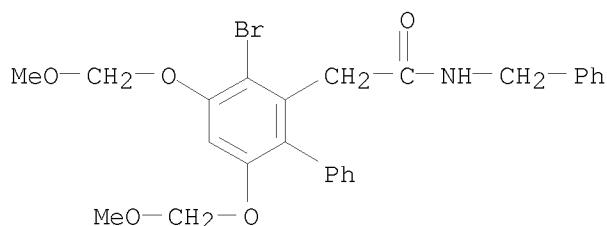
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

10584234



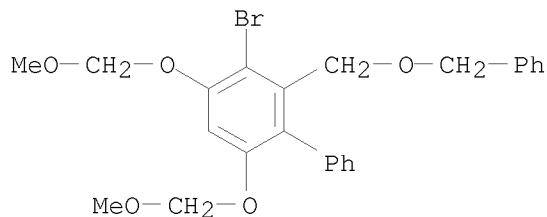
RN 860155-26-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-(phenylmethyl)- (CA INDEX NAME)



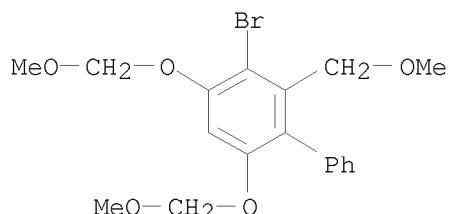
RN 860155-27-7 CAPLUS

CN 1,1'-Biphenyl, 3-bromo-4,6-bis(methoxymethoxy)-2-[ (phenylmethoxy)methyl]- (CA INDEX NAME)



RN 860155-28-8 CAPLUS

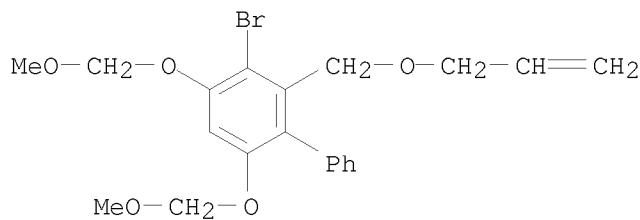
CN 1,1'-Biphenyl, 3-bromo-4,6-bis(methoxymethoxy)-2-(methoxymethyl)- (CA INDEX NAME)



RN 860155-29-9 CAPLUS

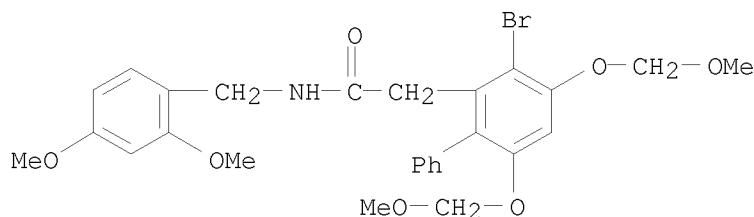
CN 1,1'-Biphenyl, 3-bromo-4,6-bis(methoxymethoxy)-2-[ (2-propenyloxy)methyl]- (9CI) (CA INDEX NAME)

10584234



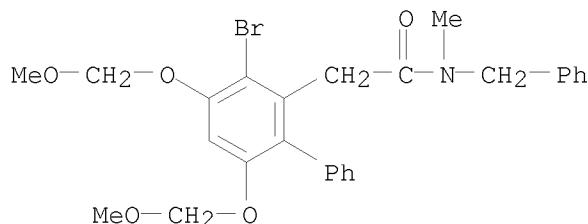
RN 860155-30-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-[ (2,4-dimethoxyphenyl)methyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



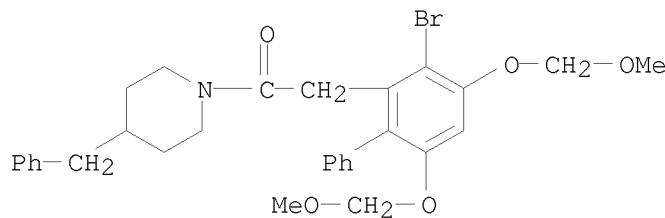
RN 860155-31-3 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-methyl-N-(phenylmethyl)- (CA INDEX NAME)



RN 860155-32-4 CAPLUS

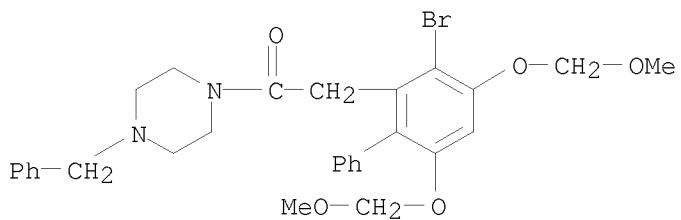
CN Piperidine, 1-[(3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-(phenylmethyl)- (9CI) (CA INDEX NAME)



RN 860155-33-5 CAPLUS

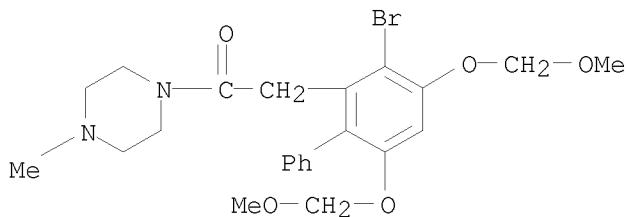
CN Piperazine, 1-[(3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-(phenylmethyl)- (9CI) (CA INDEX NAME)

10584234



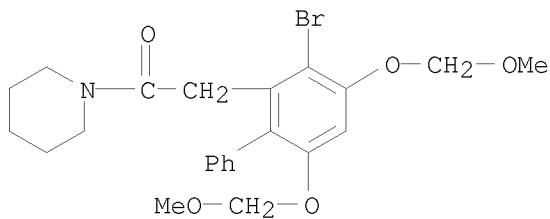
RN 860155-34-6 CAPLUS

CN Piperazine, 1-[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-methyl- (9CI) (CA INDEX NAME)



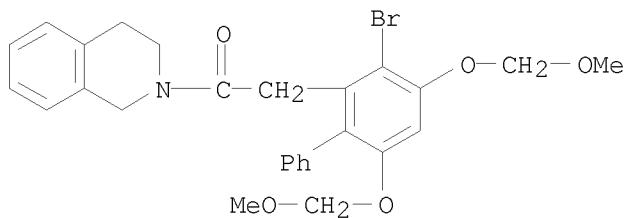
RN 860155-35-7 CAPLUS

CN Piperidine, 1-[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]- (9CI) (CA INDEX NAME)



RN 860155-36-8 CAPLUS

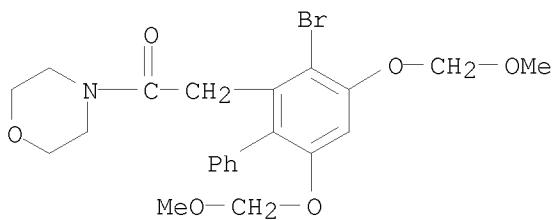
CN Isoquinoline, 2-[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-1,2,3,4-tetrahydro- (9CI) (CA INDEX NAME)



RN 860155-37-9 CAPLUS

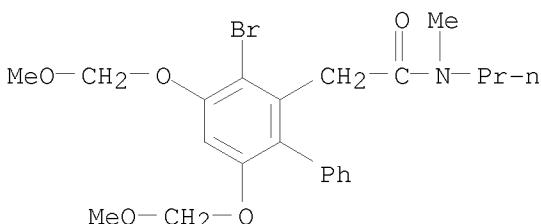
CN Morpholine, 4-[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]- (9CI) (CA INDEX NAME)

10584234



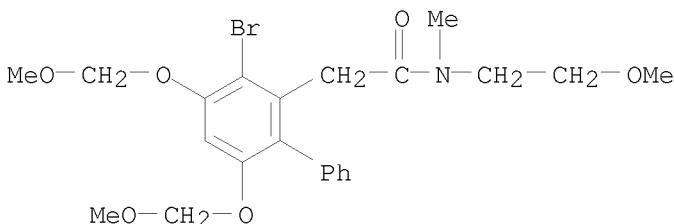
RN 860155-38-0 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-methyl-N-propyl- (CA INDEX NAME)



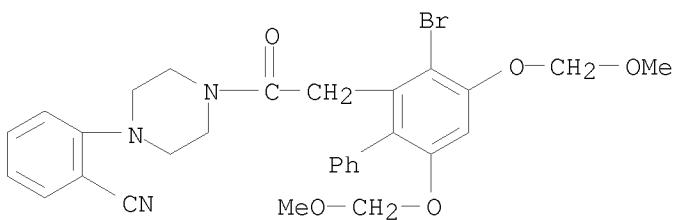
RN 860155-39-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-N-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-N-methyl- (CA INDEX NAME)



RN 860155-40-4 CAPLUS

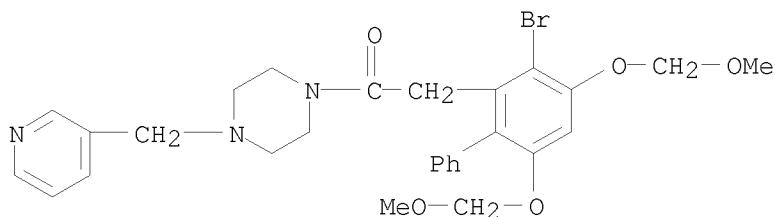
CN Piperazine, 1-[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-(2-cyanophenyl)- (9CI) (CA INDEX NAME)



RN 860155-41-5 CAPLUS

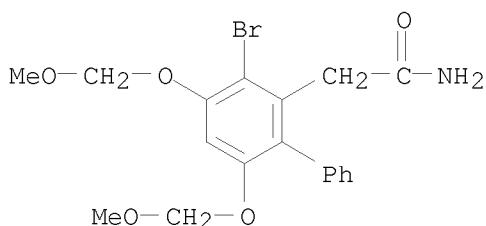
CN Piperazine, 1-[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-(3-pyridinylmethyl)- (9CI) (CA INDEX NAME)

10584234



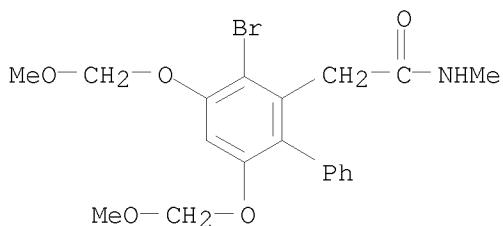
RN 860155-42-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



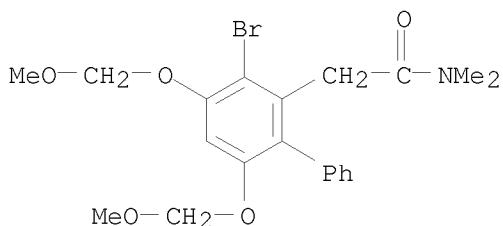
RN 860155-43-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-methyl- (CA INDEX NAME)



RN 860155-44-8 CAPLUS

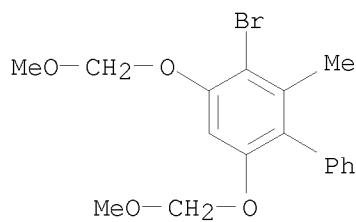
CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N,N-dimethyl- (CA INDEX NAME)



RN 860155-47-1 CAPLUS

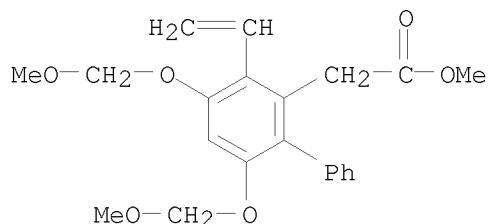
CN 1,1'-Biphenyl, 3-bromo-4,6-bis(methoxymethoxy)-2-methyl- (CA INDEX NAME)

10584234



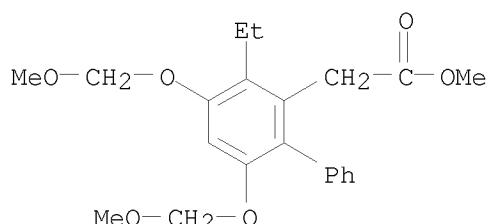
RN 860155-55-1 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethenyl-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



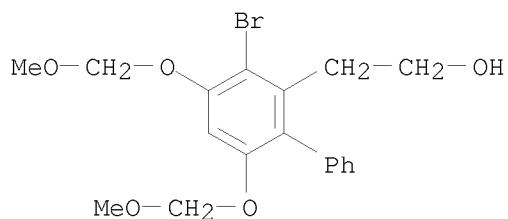
RN 860155-56-2 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-65-3 CAPLUS

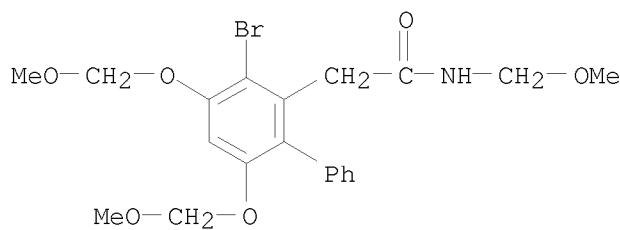
CN [1,1'-Biphenyl]-2-ethanol, 3-bromo-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



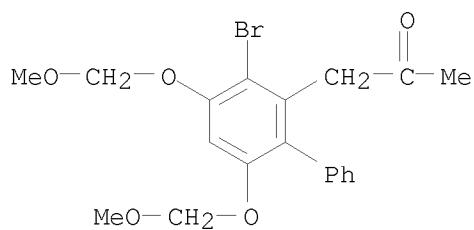
RN 860155-66-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-(methoxymethyl)- (CA INDEX NAME)

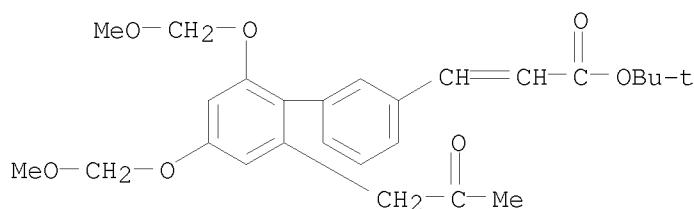
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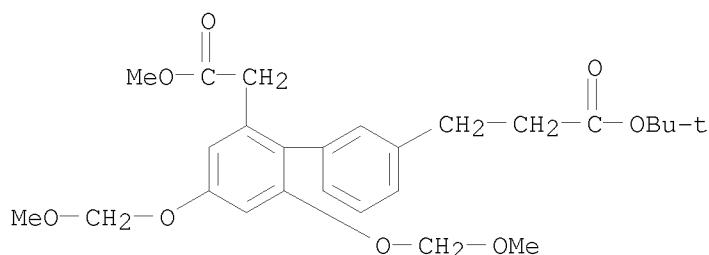
RN 860155-67-5 CAPLUS  
CN 2-Propanone, 1-[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]- (CA INDEX NAME)



RN 860155-68-6 CAPLUS  
CN 2-Propenoic acid, 3-[2',4'-bis(methoxymethoxy)-6'-(2-oxopropyl)[1,1'-biphenyl]-3-yl]-, 1,1-dimethylethyl ester (CA INDEX NAME)

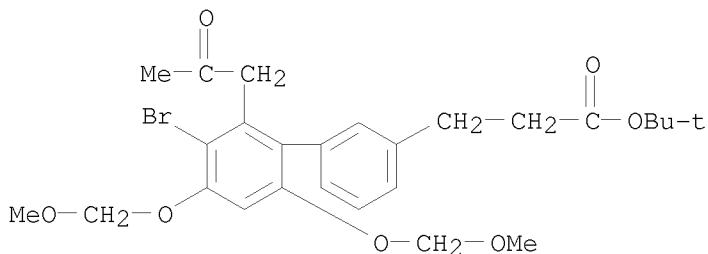


RN 860155-69-7 CAPLUS  
CN [1,1'-Biphenyl]-3-propanoic acid, 2',4'-bis(methoxymethoxy)-6'-(2-methoxy-2-oxoethyl)-, 1,1-dimethylethyl ester (CA INDEX NAME)



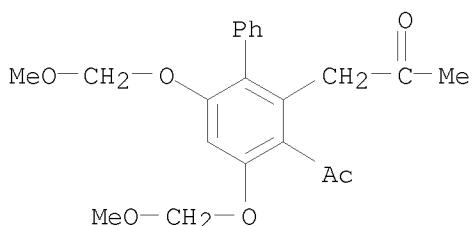
RN 860155-70-0 CAPLUS  
CN [1,1'-Biphenyl]-3-propanoic acid, 3'-bromo-4',6'-bis(methoxymethoxy)-2'-(2-oxopropyl)-, 1,1-dimethylethyl ester (CA INDEX NAME)

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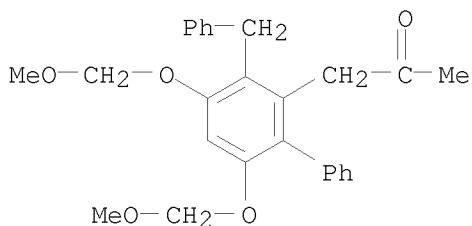
RN 860155-71-1 CAPLUS

CN 2-Propanone, 1-[3-acetyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]-(CA INDEX NAME)



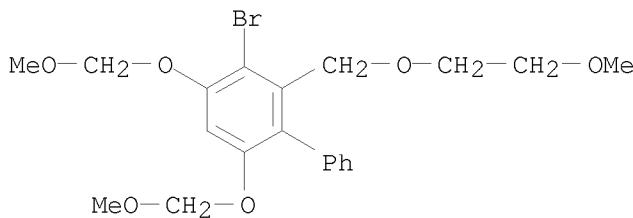
RN 860155-72-2 CAPLUS

CN 2-Propanone, 1-[4,6-bis(methoxymethoxy)-3-(phenylmethyl)[1,1'-biphenyl]-2-yl]-(CA INDEX NAME)



RN 860155-73-3 CAPLUS

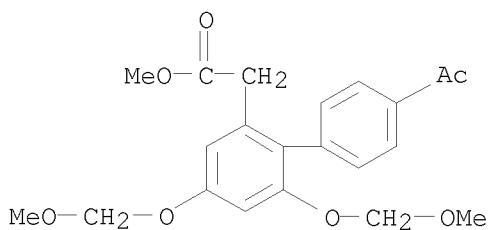
CN 1,1'-Biphenyl, 3-bromo-2-[(2-methoxyethoxy)methyl]-4,6-bis(methoxymethoxy)-(CA INDEX NAME)



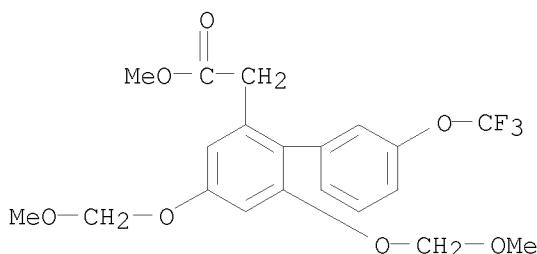
RN 860155-74-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4'-acetyl-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)

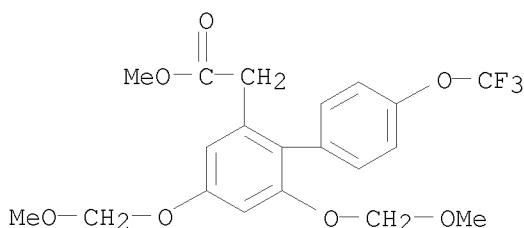
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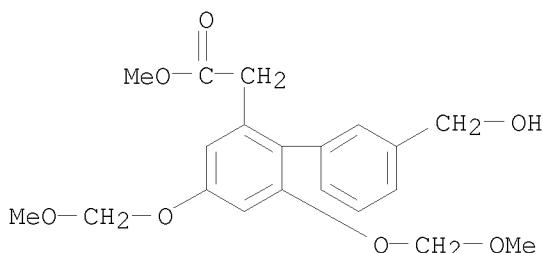
RN 860155-75-5 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-3'-(trifluoromethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-76-6 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-4'-(trifluoromethoxy)-, methyl ester (CA INDEX NAME)



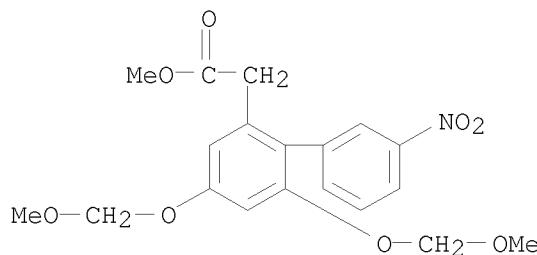
RN 860155-77-7 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3'-(hydroxymethyl)-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-78-8 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-3'-nitro-, methyl

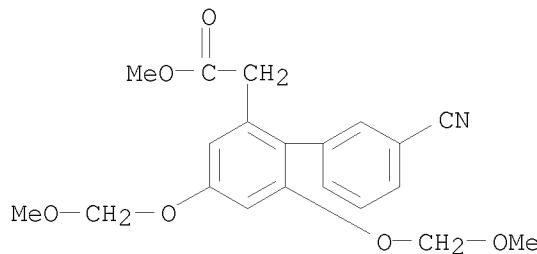
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ester (CA INDEX NAME)



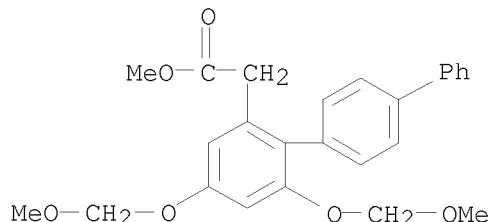
RN 860155-79-9 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3'-cyano-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



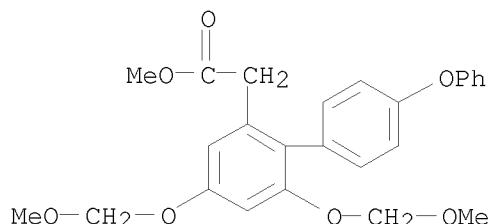
RN 860155-80-2 CAPLUS

CN [1,1':4',1'''-Terphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-, methyl ester (9CI) (CA INDEX NAME)



RN 860155-81-3 CAPLUS

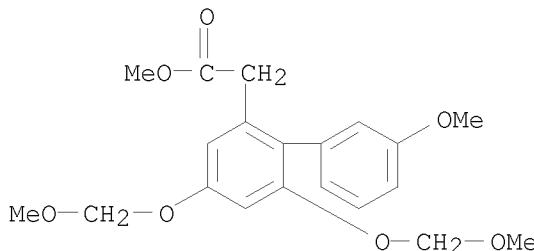
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-4'-phenoxy-, methyl ester (CA INDEX NAME)



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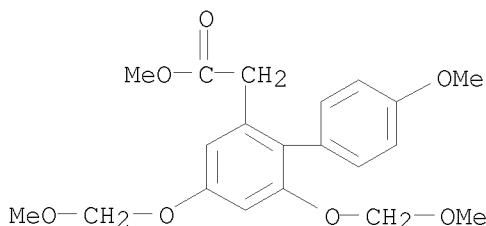
RN 860155-82-4 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3'-methoxy-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



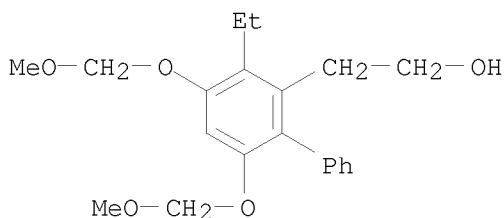
RN 860155-83-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4'-methoxy-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



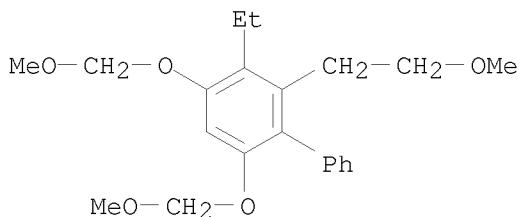
RN 860155-84-6 CAPLUS

CN [1,1'-Biphenyl]-2-ethanol, 3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860155-85-7 CAPLUS

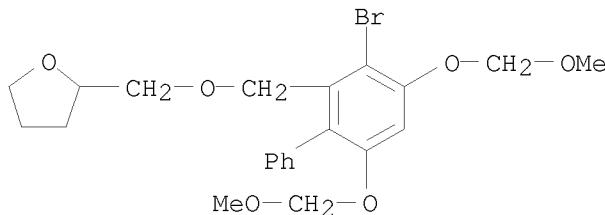
CN 1,1'-Biphenyl, 3-ethyl-2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



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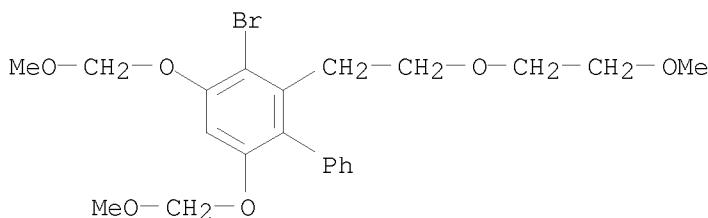
RN 860155-86-8 CAPLUS

CN Furan, 2-[[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]methoxy]methyl]tetrahydro- (CA INDEX NAME)



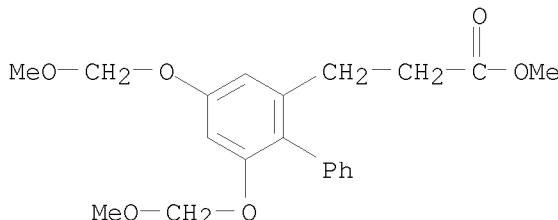
RN 860155-87-9 CAPLUS

CN 1,1'-Biphenyl, 3-bromo-2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



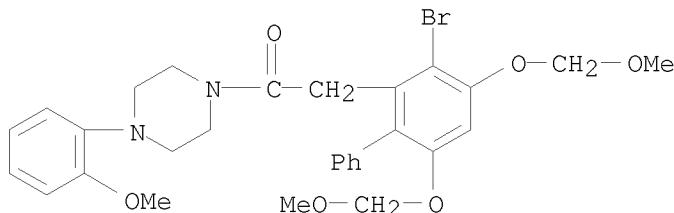
RN 860155-90-4 CAPLUS

CN [1,1'-Biphenyl]-2-propanoic acid, 4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860155-91-5 CAPLUS

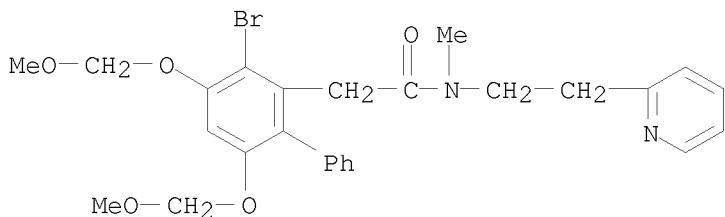
CN Piperazine, 1-[[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-(2-methoxyphenyl)- (9CI) (CA INDEX NAME)



10584234

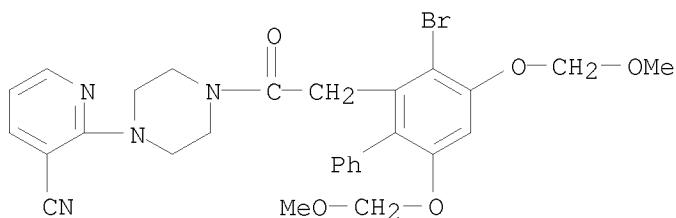
RN 860155-92-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-bromo-4,6-bis(methoxymethoxy)-N-methyl-N-[2-(2-pyridinyl)ethyl]- (CA INDEX NAME)



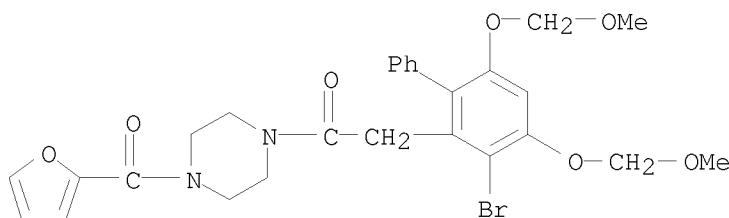
RN 860155-93-7 CAPLUS

CN Piperazine, 1-[(3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-(3-cyano-2-pyridinyl)- (9CI) (CA INDEX NAME)



RN 860155-94-8 CAPLUS

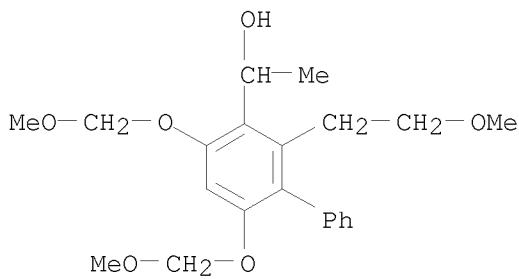
CN Piperazine, 1-[(3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl]-4-(2-furanylcarbonyl)- (9CI) (CA INDEX NAME)



RN 860155-95-9 CAPLUS

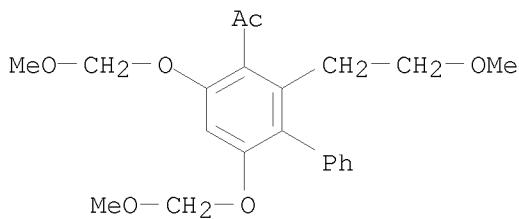
CN [1,1'-Biphenyl]-3-methanol, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- $\alpha$ -methyl- (CA INDEX NAME)

10584234



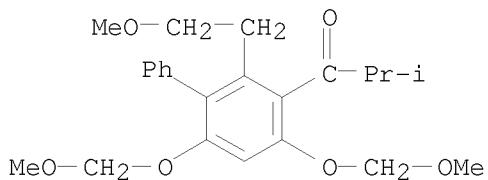
RN 860155-96-0 CAPLUS

CN Ethanone, 1-[2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



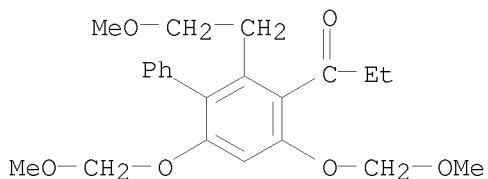
RN 860155-97-1 CAPLUS

CN 1-Propanone, 1-[2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]-2-methyl- (CA INDEX NAME)



RN 860155-98-2 CAPLUS

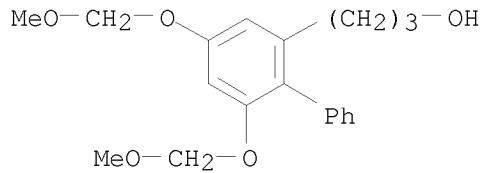
CN 1-Propanone, 1-[2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860155-99-3 CAPLUS

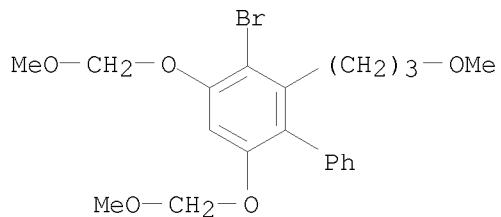
CN [1,1'-Biphenyl]-2-propanol, 4,6-bis(methoxymethoxy)- (CA INDEX NAME)

10584234



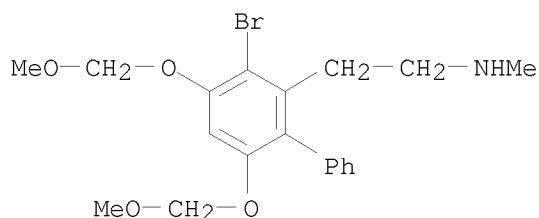
RN 860156-00-9 CAPLUS

CN [1,1'-Biphenyl]-2-ethanamine, 3-bromo-4,6-bis(methoxymethoxy)-2-(3-methoxypropyl)- (CA INDEX NAME)



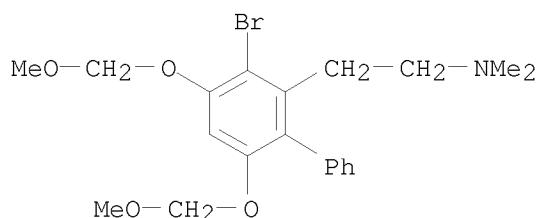
RN 860156-01-0 CAPLUS

CN [1,1'-Biphenyl]-2-ethanamine, 3-bromo-4,6-bis(methoxymethoxy)-N-methyl- (CA INDEX NAME)



RN 860156-02-1 CAPLUS

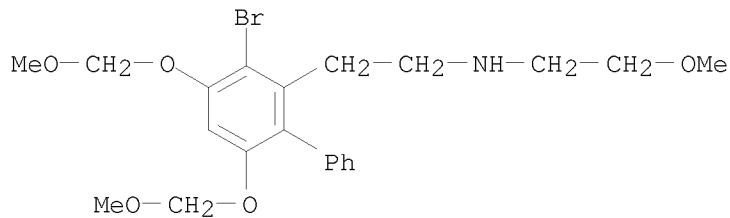
CN [1,1'-Biphenyl]-2-ethanamine, 3-bromo-4,6-bis(methoxymethoxy)-N,N-dimethyl- (CA INDEX NAME)



RN 860156-03-2 CAPLUS

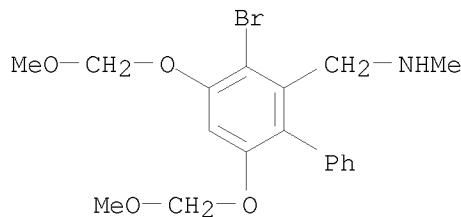
CN [1,1'-Biphenyl]-2-ethanamine, 3-bromo-N-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

10584234



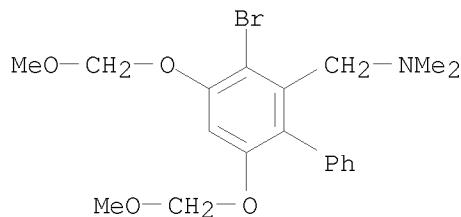
RN 860156-04-3 CAPLUS

CN [1,1'-Biphenyl]-2-methanamine, 3-bromo-4,6-bis(methoxymethoxy)-N-methyl-  
(CA INDEX NAME)



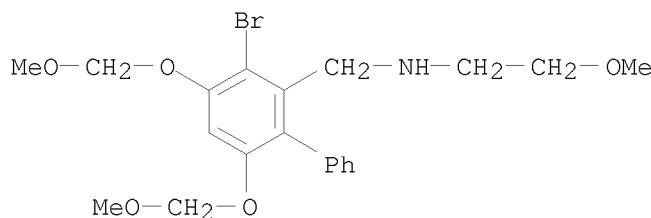
RN 860156-05-4 CAPLUS

CN [1,1'-Biphenyl]-2-methanamine, 3-bromo-4,6-bis(methoxymethoxy)-N,N-dimethyl-  
(CA INDEX NAME)



RN 860156-06-5 CAPLUS

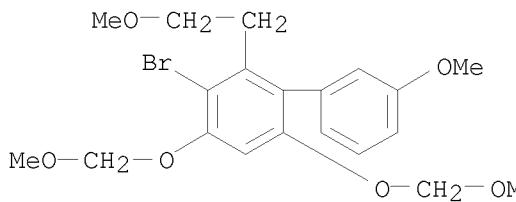
CN [1,1'-Biphenyl]-2-methanamine, 3-bromo-N-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-  
(CA INDEX NAME)



RN 860156-07-6 CAPLUS

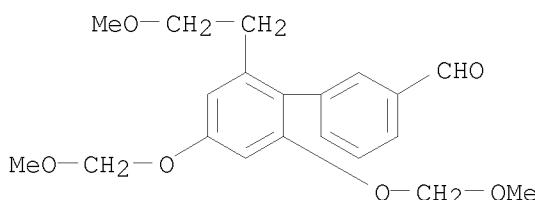
CN 1,1'-Biphenyl, 3-bromo-3'-methoxy-2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-  
(CA INDEX NAME)

10584234



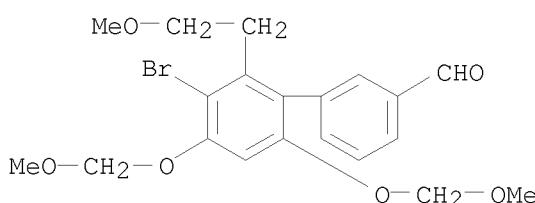
RN 860156-08-7 CAPLUS

CN [1,1'-Biphenyl]-3-carboxaldehyde, 2'-(2-methoxyethyl)-4',6'-bis(methoxymethoxy)- (CA INDEX NAME)



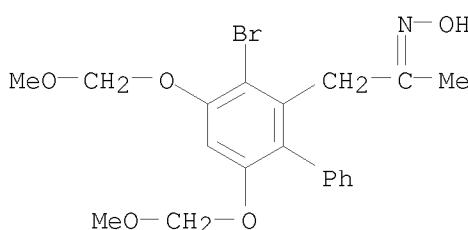
RN 860156-09-8 CAPLUS

CN [1,1'-Biphenyl]-3-carboxaldehyde, 3'-bromo-2'-(2-methoxyethyl)-4',6'-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-11-2 CAPLUS

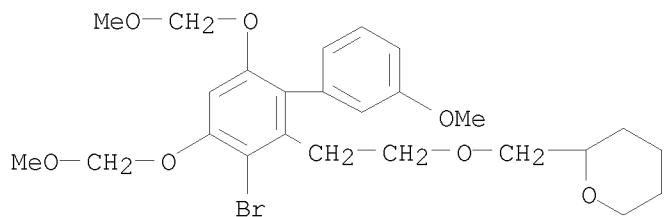
CN 2-Propanone, 1-[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]-oxime (CA INDEX NAME)



RN 860156-12-3 CAPLUS

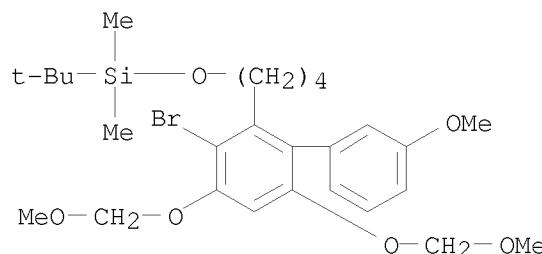
CN 2H-Pyran, 2-[[2-[3-bromo-3'-methoxy-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]methyl]tetrahydro- (CA INDEX NAME)

10584234



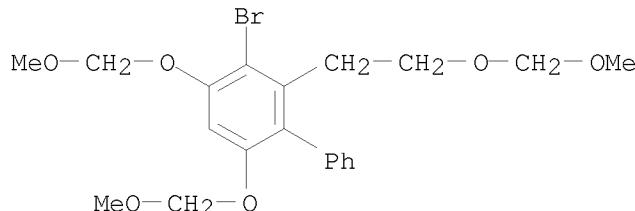
RN 860156-14-5 CAPLUS

CN Silane, [4-[3-bromo-3'-methoxy-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]butoxy](1,1-dimethylethyl)dimethyl- (9CI) (CA INDEX NAME)



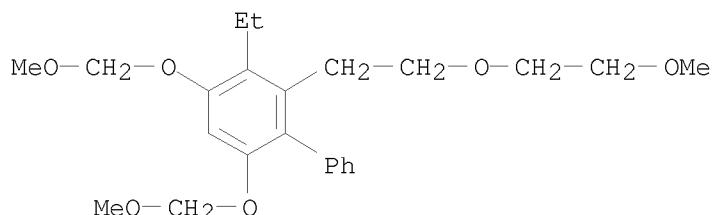
RN 860156-15-6 CAPLUS

CN 1,1'-Biphenyl, 3-bromo-4,6-bis(methoxymethoxy)-2-[2-(methoxymethoxy)ethyl]- (CA INDEX NAME)



RN 860156-16-7 CAPLUS

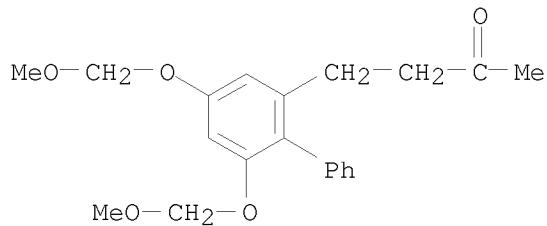
CN 1,1'-Biphenyl, 3-ethyl-2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-18-9 CAPLUS

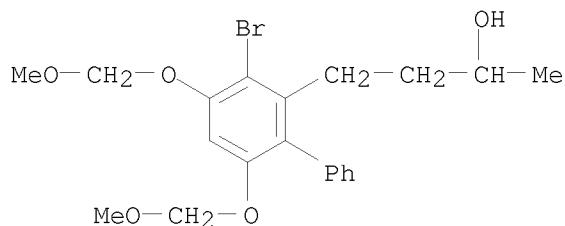
CN 2-Butanone, 4-[4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]- (CA INDEX NAME)

10584234



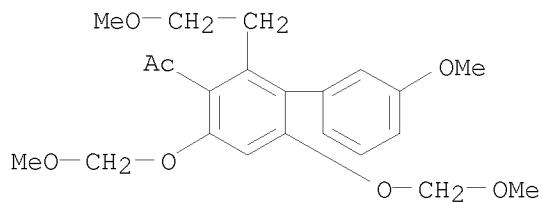
RN 860156-19-0 CAPLUS

CN [1,1'-Biphenyl]-2-propanol, 3-bromo-4,6-bis(methoxymethoxy)- $\alpha$ -methyl-  
(CA INDEX NAME)



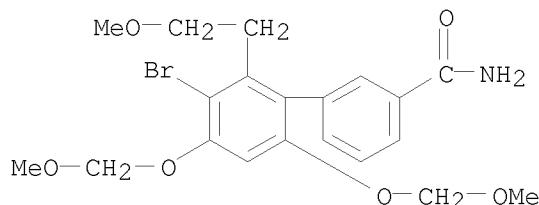
RN 860156-23-6 CAPLUS

CN Ethanone, 1-[3'-methoxy-2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860156-24-7 CAPLUS

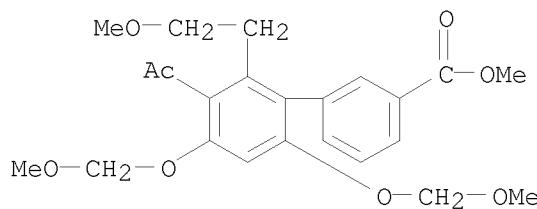
CN [1,1'-Biphenyl]-3-carboxamide, 3'-bromo-2'-(2-methoxyethyl)-4',6'-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-25-8 CAPLUS

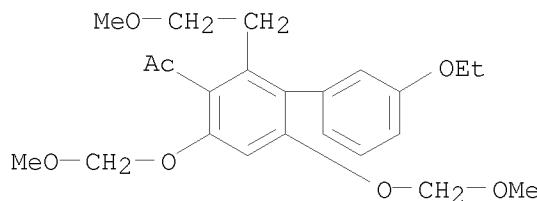
CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-acetyl-2'-(2-methoxyethyl)-4',6'-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)

10584234



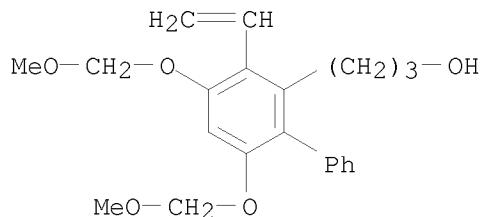
RN 860156-26-9 CAPLUS

CN Ethanone, 1-[3'-ethoxy-2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



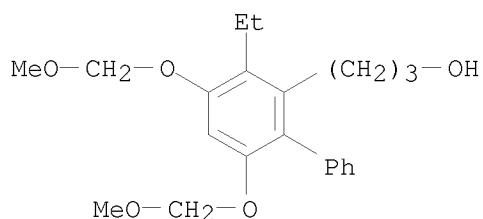
RN 860156-27-0 CAPLUS

CN [1,1'-Biphenyl]-2-propanol, 3-ethenyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-28-1 CAPLUS

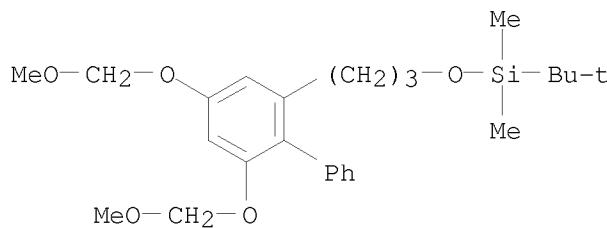
CN [1,1'-Biphenyl]-2-propanol, 3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



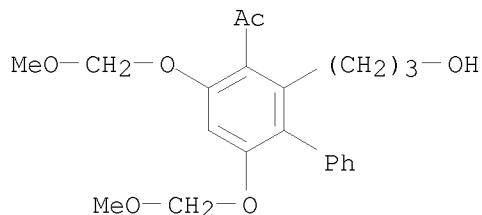
RN 860156-29-2 CAPLUS

CN Silane, [3-[4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy](1,1-dimethylethyl)dimethyl- (9CI) (CA INDEX NAME)

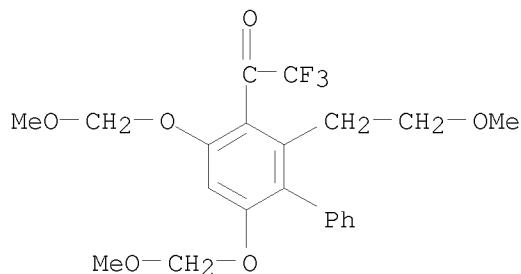
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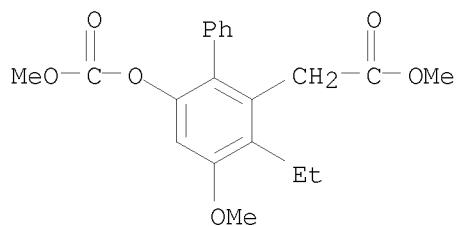
RN 860156-30-5 CAPLUS  
CN Ethanone, 1-[2-(3-hydroxypropyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860156-31-6 CAPLUS  
CN Ethanone, 2,2,2-trifluoro-1-[2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



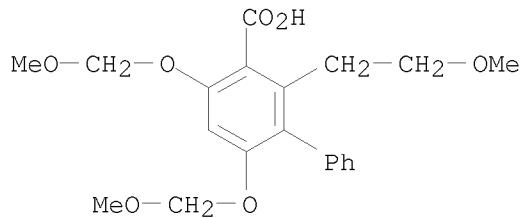
RN 860156-33-8 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4-methoxy-6-[(methoxycarbonyl)oxy]-, methyl ester (CA INDEX NAME)



RN 860156-34-9 CAPLUS  
CN [1,1'-Biphenyl]-3-carboxylic acid, 2-(2-methoxyethyl)-4,6-

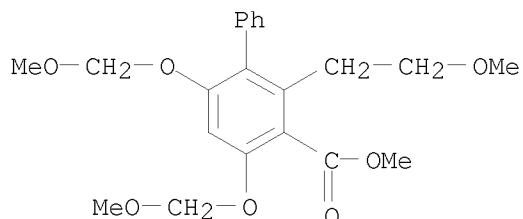
10584234

bis(methoxymethoxy)- (CA INDEX NAME)



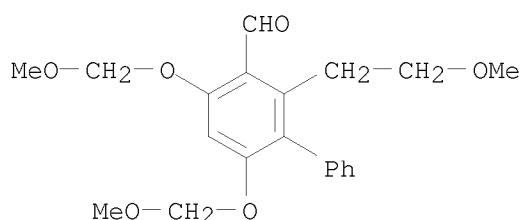
RN 860156-35-0 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



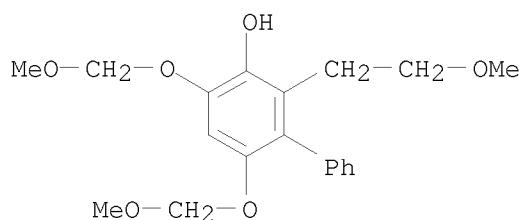
RN 860156-36-1 CAPLUS

CN [1,1'-Biphenyl]-3-carboxaldehyde, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-37-2 CAPLUS

CN [1,1'-Biphenyl]-3-ol, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

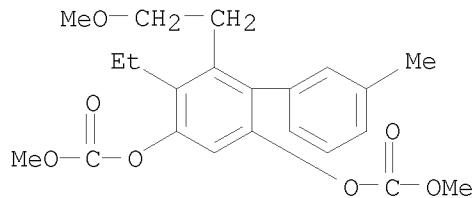


RN 860156-38-3 CAPLUS

CN Carbonic acid, 5-ethyl-6-(2-methoxyethyl)-3'-methyl[1,1'-biphenyl]-2,4-

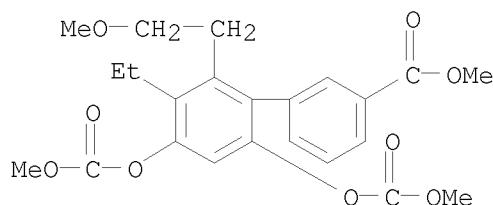
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diyl dimethyl ester (9CI) (CA INDEX NAME)



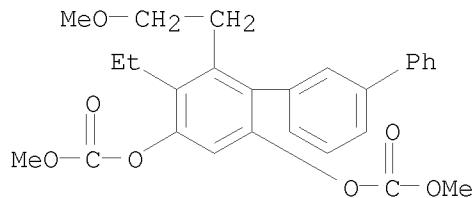
RN 860156-39-4 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 3'-ethyl-4',6'-bis(methoxycarbonyloxy)-2'-(2-methoxyethyl)-, methyl ester (CA INDEX NAME)



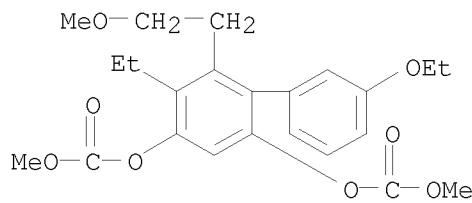
RN 860156-40-7 CAPLUS

CN Carbonic acid, 5-ethyl-6-(2-methoxyethyl)[1,1':3',1''-terphenyl]-2,4-diyl dimethyl ester (9CI) (CA INDEX NAME)



RN 860156-41-8 CAPLUS

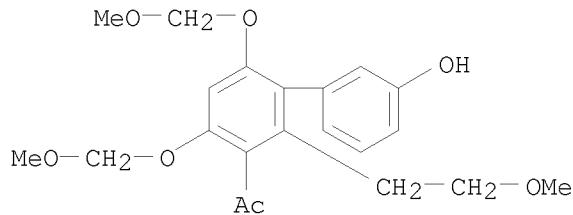
CN Carbonic acid, 3'-ethoxy-5-ethyl-6-(2-methoxyethyl)[1,1'-biphenyl]-2,4-diyl dimethyl ester (9CI) (CA INDEX NAME)



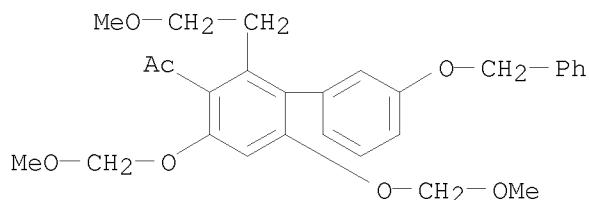
RN 860156-42-9 CAPLUS

CN Ethanone, 1-[3'-hydroxy-2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

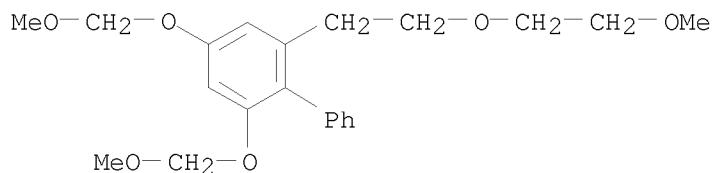
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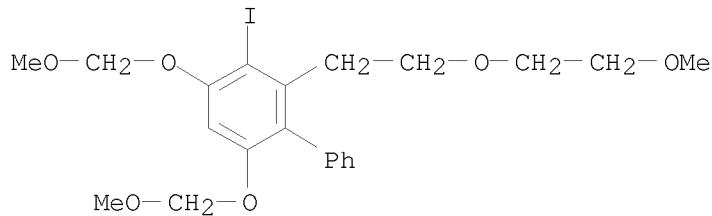
RN 860156-43-0 CAPLUS  
CN Ethanone, 1-[2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-3'-acetylphenylmethoxy] [1,1'-biphenyl]-3-yl] - (CA INDEX NAME)



RN 860156-44-1 CAPLUS  
CN 1,1'-Biphenyl, 2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

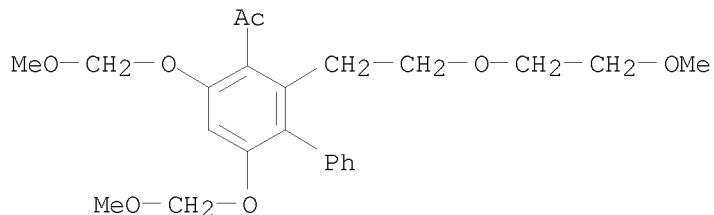


RN 860156-45-2 CAPLUS  
CN 1,1'-Biphenyl, 3-iodo-2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

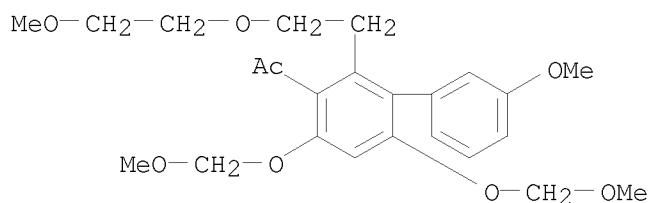


RN 860156-46-3 CAPLUS  
CN Ethanone, 1-[2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy) [1,1'-biphenyl]-3-yl] - (CA INDEX NAME)

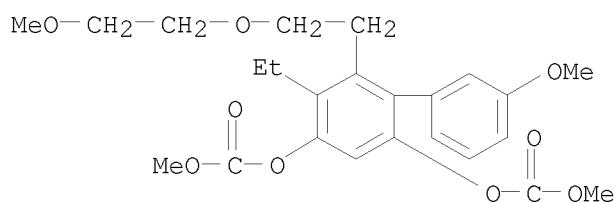
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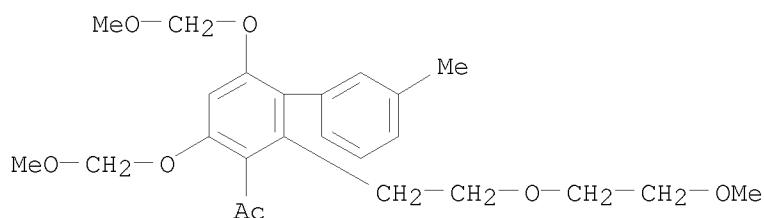
RN 860156-50-9 CAPLUS  
CN Ethanone, 1-[3'-methoxy-2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860156-51-0 CAPLUS  
CN Carbonic acid, 5-ethyl-3'-methoxy-6-[2-(2-methoxyethoxy)ethyl][1,1'-biphenyl]-2,4-diyl dimethyl ester (9CI) (CA INDEX NAME)

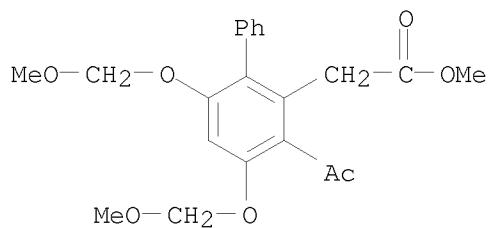


RN 860156-52-1 CAPLUS  
CN Ethanone, 1-[2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy)-3'-methyl[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

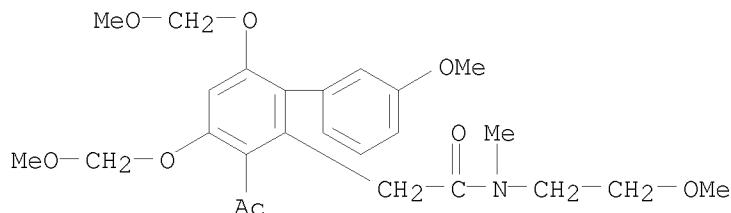


RN 860156-55-4 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3-acetyl-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)

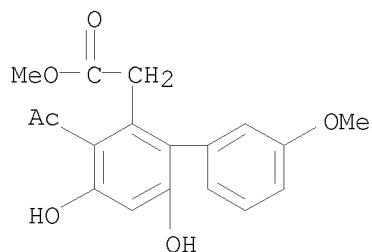
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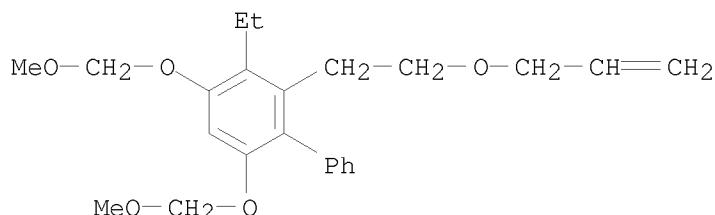
RN 860156-56-5 CAPLUS  
CN [1,1'-Biphenyl]-2-acetamide, 3-acetyl-3'-methoxy-N-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-N-methyl- (CA INDEX NAME)



RN 860156-57-6 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3-acetyl-4,6-dihydroxy-3'-methoxy-, methyl ester (CA INDEX NAME)

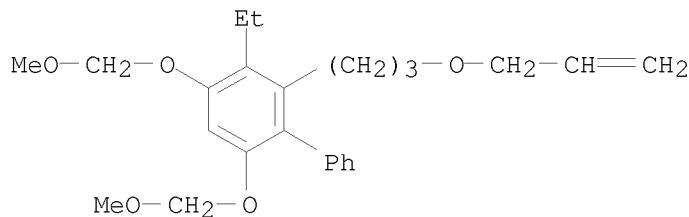


RN 860156-58-7 CAPLUS  
CN 1,1'-Biphenyl, 3-ethyl-4,6-bis(methoxymethoxy)-2-[2-(2-propenyloxy)ethyl]- (9CI) (CA INDEX NAME)

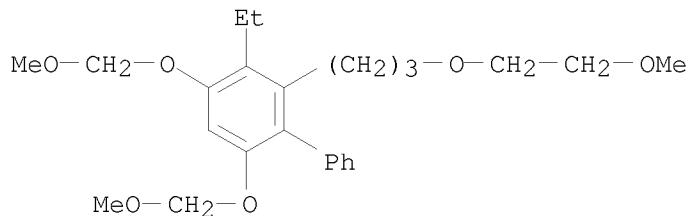


RN 860156-59-8 CAPLUS  
CN 1,1'-Biphenyl, 3-ethyl-4,6-bis(methoxymethoxy)-2-[3-(2-propenyloxy)propyl]- (9CI) (CA INDEX NAME)

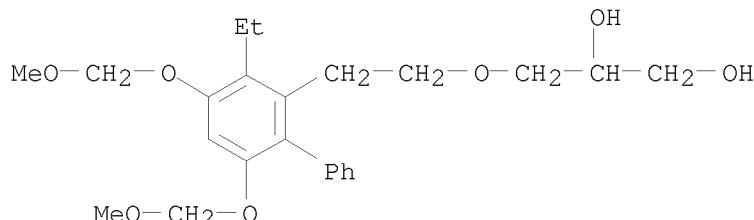
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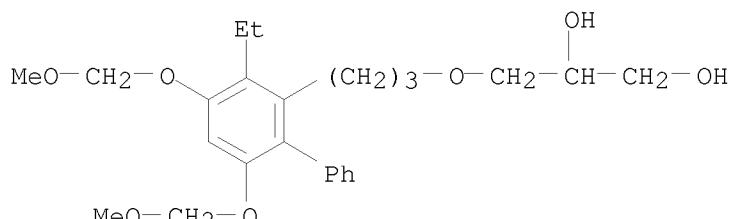
RN 860156-60-1 CAPLUS  
CN 1,1'-Biphenyl, 3-ethyl-2-[3-(2-methoxyethoxy)propyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-61-2 CAPLUS  
CN 1,2-Propanediol, 3-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (CA INDEX NAME)

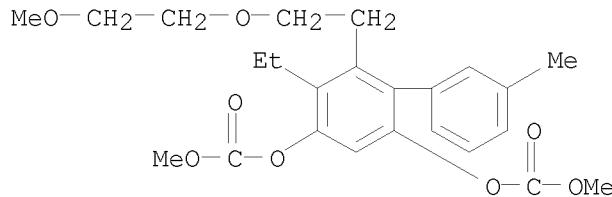


RN 860156-62-3 CAPLUS  
CN 1,2-Propanediol, 3-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]- (CA INDEX NAME)

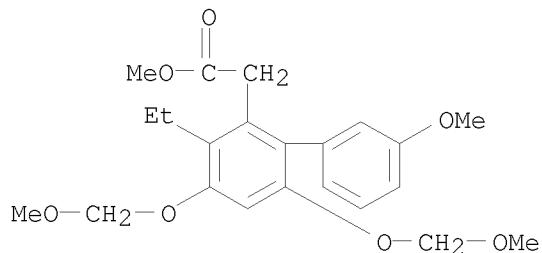


RN 860156-63-4 CAPLUS  
CN Carbonic acid, 5-ethyl-6-[2-(2-methoxyethoxy)ethyl]-3'-methyl[1,1'-biphenyl]-2,4-diyl dimethyl ester (9CI) (CA INDEX NAME)

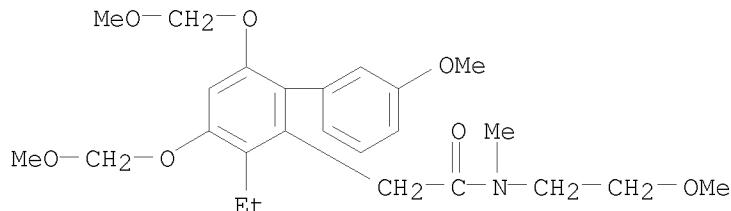
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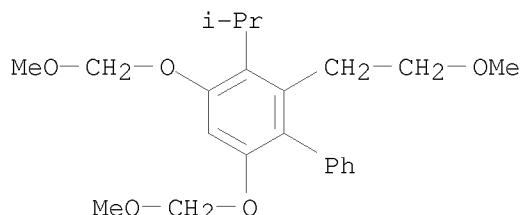
RN 860156-65-6 CAPLUS  
CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-3'-methoxy-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860156-66-7 CAPLUS  
CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-3'-methoxy-N-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-N-methyl- (CA INDEX NAME)

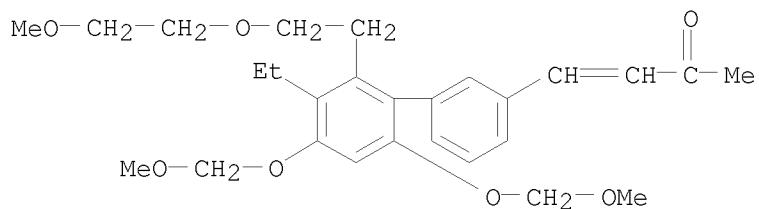


RN 860156-67-8 CAPLUS  
CN 1,1'-Biphenyl, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-3-(1-methylethyl)- (CA INDEX NAME)



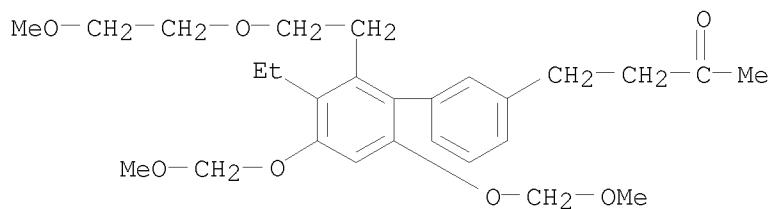
RN 860156-70-3 CAPLUS  
CN 3-Buten-2-one, 4-[3'-ethyl-2'-(2-(2-methoxyethoxy)ethyl]-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-y1- (CA INDEX NAME)

10584234



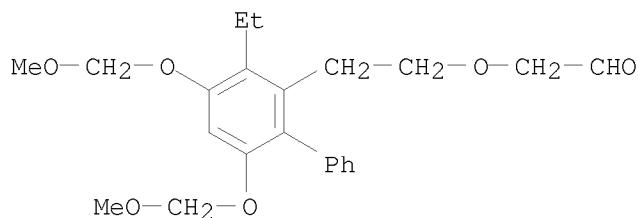
RN 860156-71-4 CAPLUS

CN 2-Butanone, 4-[3'-ethyl-2'-(2-methoxyethoxy)ethyl]-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl- (CA INDEX NAME)



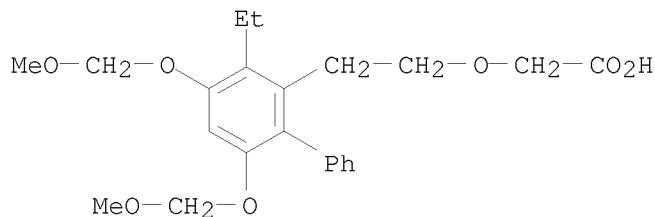
RN 860156-72-5 CAPLUS

CN Acetaldehyde, [2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (9CI) (CA INDEX NAME)



RN 860156-73-6 CAPLUS

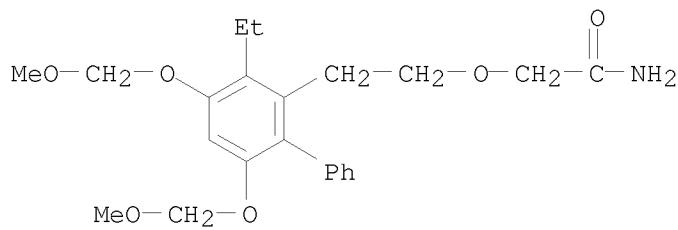
CN Acetic acid, [2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (9CI) (CA INDEX NAME)



RN 860156-74-7 CAPLUS

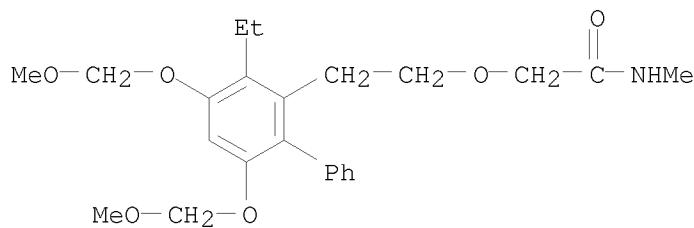
CN Acetamide, 2-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (CA INDEX NAME)

10584234



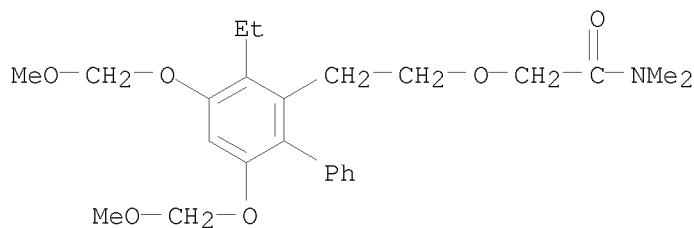
RN 860156-75-8 CAPLUS

CN Acetamide, 2-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]-N-methyl- (CA INDEX NAME)



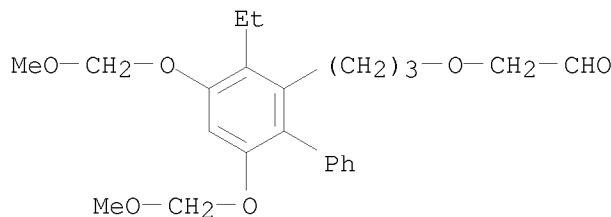
RN 860156-76-9 CAPLUS

CN Acetamide, 2-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]-N,N-dimethyl- (CA INDEX NAME)



RN 860156-77-0 CAPLUS

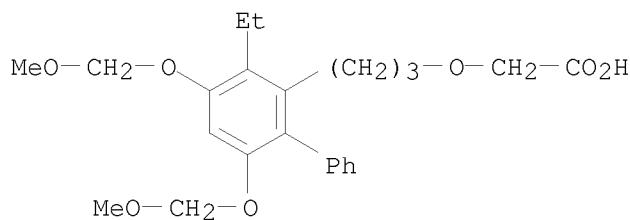
CN Acetaldehyde, [3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]- (9CI) (CA INDEX NAME)



RN 860156-78-1 CAPLUS

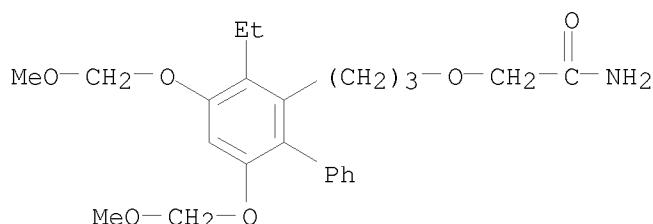
CN Acetic acid, [3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]- (9CI) (CA INDEX NAME)

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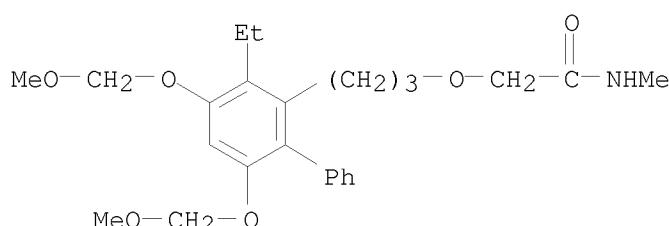
RN 860156-79-2 CAPLUS

CN Acetamide, 2-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]- (CA INDEX NAME)



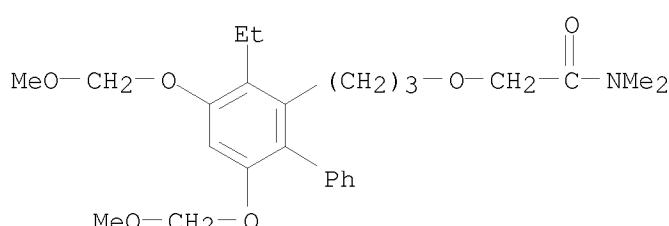
RN 860156-80-5 CAPLUS

CN Acetamide, 2-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]-N-methyl- (CA INDEX NAME)



RN 860156-81-6 CAPLUS

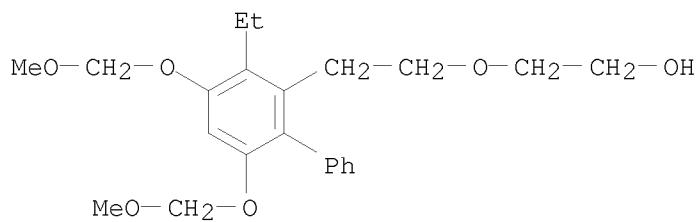
CN Acetamide, 2-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]-N,N-dimethyl- (CA INDEX NAME)



RN 860156-82-7 CAPLUS

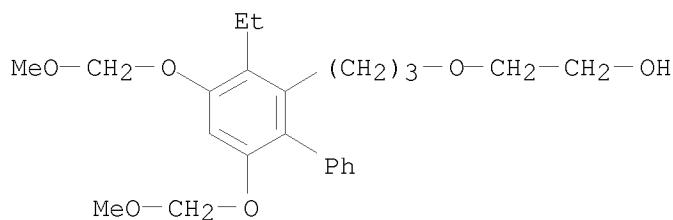
CN Ethanol, 2-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (CA INDEX NAME)

10584234



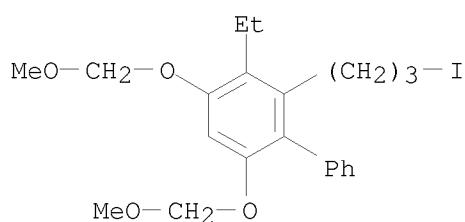
RN 860156-83-8 CAPLUS

CN Ethanol, 2-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]- (CA INDEX NAME)



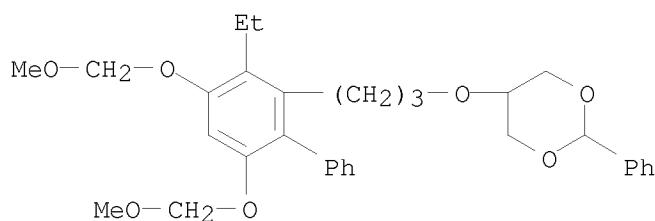
RN 860156-84-9 CAPLUS

CN 1,1'-Biphenyl, 3-ethyl-2-(3-iodopropyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-85-0 CAPLUS

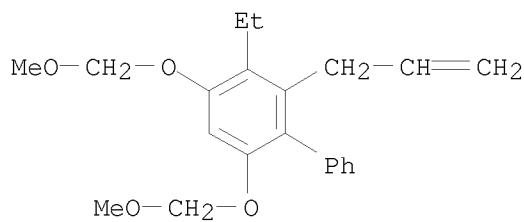
CN 1,3-Dioxane, 5-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]-2-phenyl- (CA INDEX NAME)



RN 860156-86-1 CAPLUS

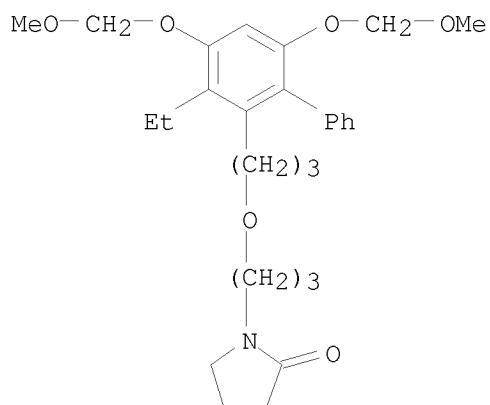
CN 1,1'-Biphenyl, 3-ethyl-4,6-bis(methoxymethoxy)-2-(2-propenyl)- (9CI) (CA INDEX NAME)

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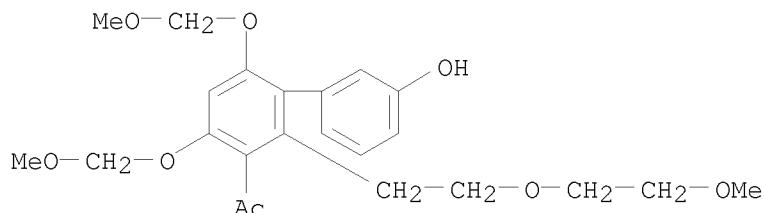
RN 860156-88-3 CAPLUS

CN 2-Pyrrolidinone, 1-[3-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]propyl]- (CA INDEX NAME)



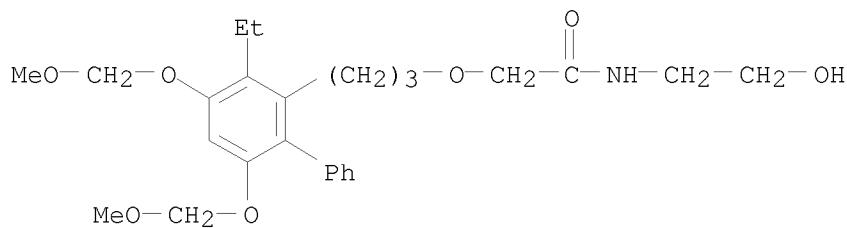
RN 860156-89-4 CAPLUS

CN Ethanone, 1-[3'-hydroxy-2-[2-(2-methoxyethoxy)ethyl]-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



RN 860156-90-7 CAPLUS

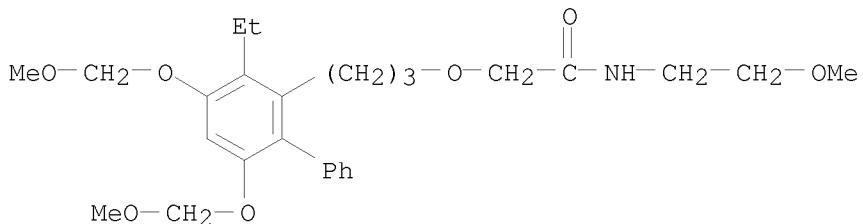
CN Acetamide, 2-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]-N-(2-hydroxyethyl)- (CA INDEX NAME)



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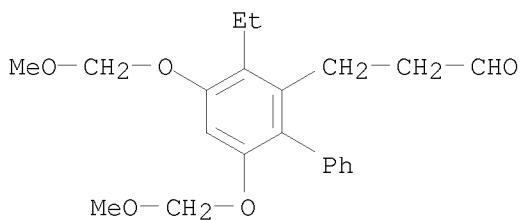
RN 860156-91-8 CAPLUS

CN Acetamide, 2-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propoxy]-N-(2-methoxyethyl)- (CA INDEX NAME)



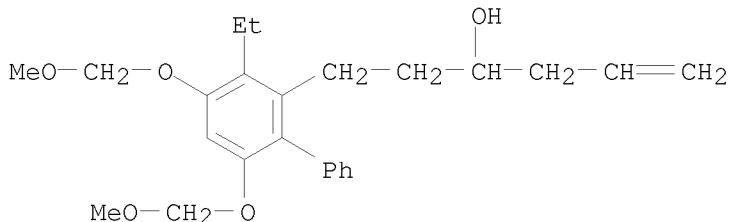
RN 860156-92-9 CAPLUS

CN [1,1'-Biphenyl]-2-propanal, 3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860156-93-0 CAPLUS

CN [1,1'-Biphenyl]-2-propanol, 3-ethyl-4,6-bis(methoxymethoxy)- $\alpha$ -2-propenyl- (9CI) (CA INDEX NAME)

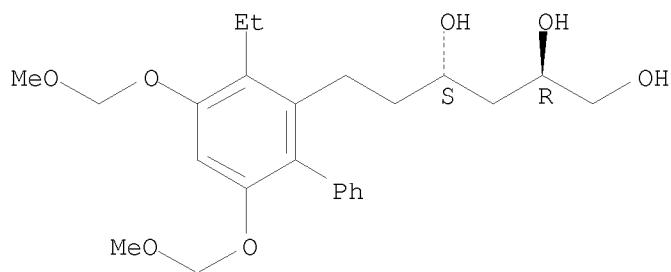


RN 860156-94-1 CAPLUS

CN 1,2,4-Hexanetriol, 6-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]-, (2R,4S)-rel- (CA INDEX NAME)

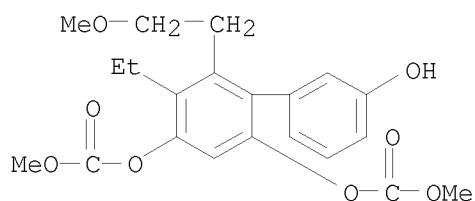
Relative stereochemistry.

10584234



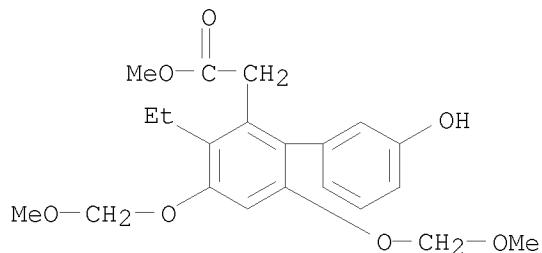
RN 860156-96-3 CAPLUS

CN Carbonic acid, 5-ethyl-3'-(hydroxy-6-(2-methoxyethyl)[1,1'-biphenyl]-2,4-diyl dimethyl ester (9CI) (CA INDEX NAME)



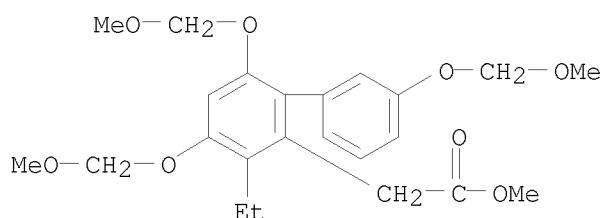
RN 860156-98-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-3'-(hydroxy-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860156-99-6 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-3',4,6-tris(methoxymethoxy)-, methyl ester (CA INDEX NAME)

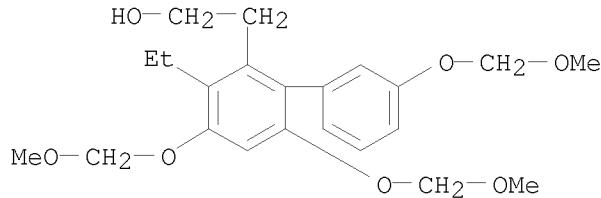


RN 860157-00-2 CAPLUS

CN [1,1'-Biphenyl]-2-ethanol, 3-ethyl-3',4,6-tris(methoxymethoxy)- (CA INDEX

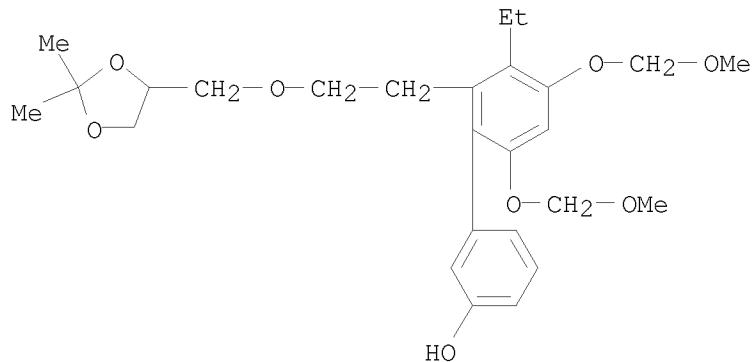
10584234

NAME)



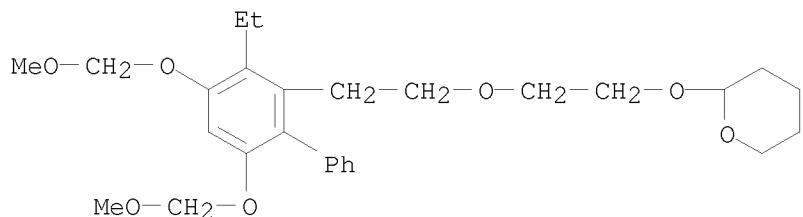
RN 860157-02-4 CAPLUS

CN [1,1'-Biphenyl]-3-ol, 2'-[2-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]ethyl]-3'-ethyl-4',6'-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860157-05-7 CAPLUS

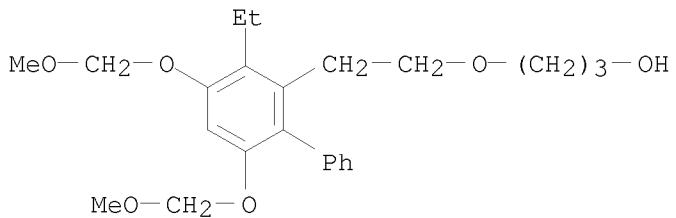
CN 2H-Pyran, 2-[2-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]ethoxy]tetrahydro- (CA INDEX NAME)



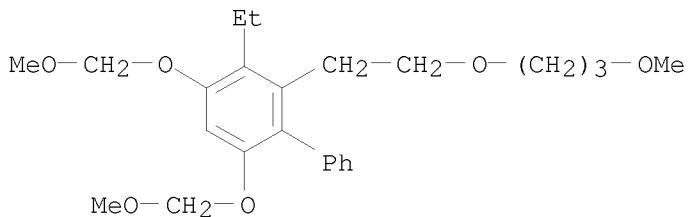
RN 860157-06-8 CAPLUS

CN 1-Propanol, 3-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (CA INDEX NAME)

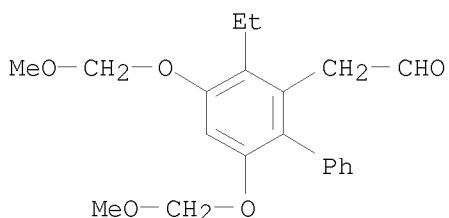
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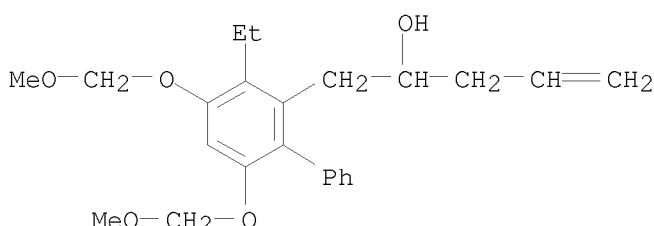
RN 860157-07-9 CAPLUS  
CN [1,1'-Biphenyl, 3-ethyl-4,6-bis(methoxymethoxy)-2-[2-(3-methoxypropoxy)ethyl]- (CA INDEX NAME)



RN 860157-08-0 CAPLUS  
CN [1,1'-Biphenyl]-2-acetaldehyde, 3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



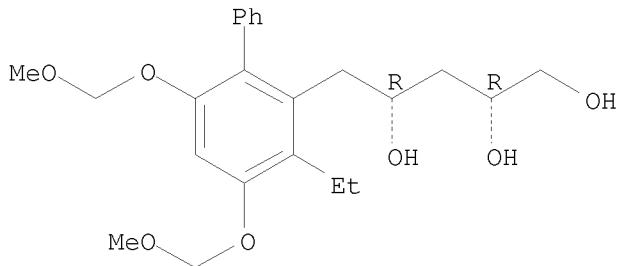
RN 860157-09-1 CAPLUS  
CN [1,1'-Biphenyl]-2-ethanol, 3-ethyl-4,6-bis(methoxymethoxy)-alpha-2-propenyl- (9CI) (CA INDEX NAME)



RN 860157-10-4 CAPLUS  
CN erythro-Pentitol, 1,3-dideoxy-1-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]- (CA INDEX NAME)

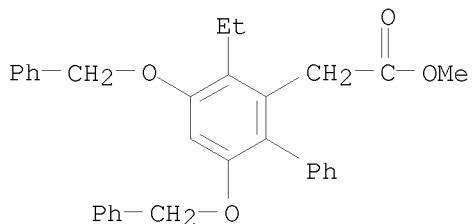
10584234

Relative stereochemistry.



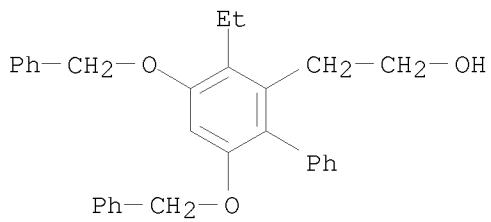
RN 860157-13-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4,6-bis(phenylmethoxy)-, methyl ester (CA INDEX NAME)



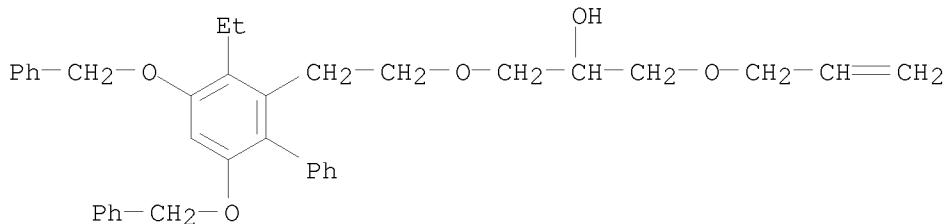
RN 860157-14-8 CAPLUS

CN [1,1'-Biphenyl]-2-ethanol, 3-ethyl-4,6-bis(phenylmethoxy)- (CA INDEX NAME)



RN 860157-15-9 CAPLUS

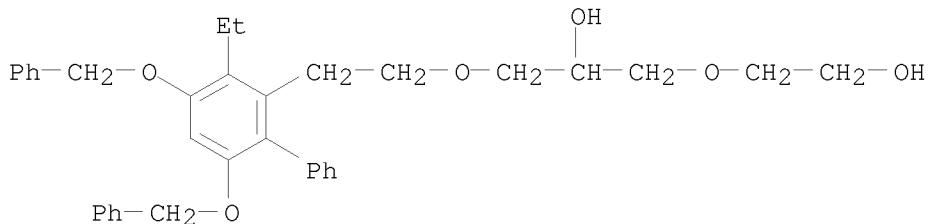
CN 2-Propanol, 1-[2-[3-ethyl-4,6-bis(phenylmethoxy)][1,1'-biphenyl]-2-yl]ethoxy]-3-(2-propenyl)- (9CI) (CA INDEX NAME)



RN 860157-16-0 CAPLUS

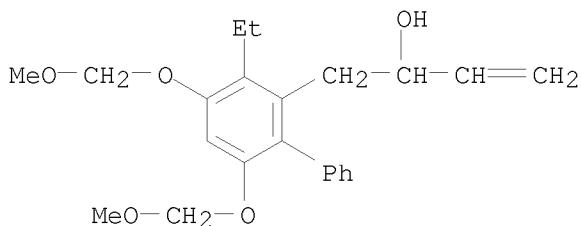
10584234

CN 2-Propanol, 1-[2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethoxy]-3-(2-hydroxyethoxy)- (CA INDEX NAME)



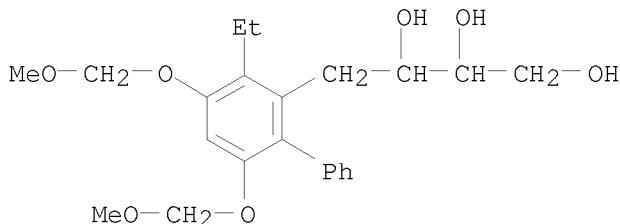
RN 860157-17-1 CAPLUS

CN [1,1'-Biphenyl]-2-ethanol,  $\alpha$ -ethenyl-3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



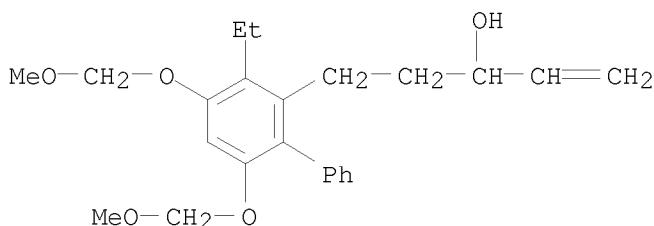
RN 860157-18-2 CAPLUS

CN 1,2,3-Butanetriol, 4-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]- (CA INDEX NAME)



RN 860157-19-3 CAPLUS

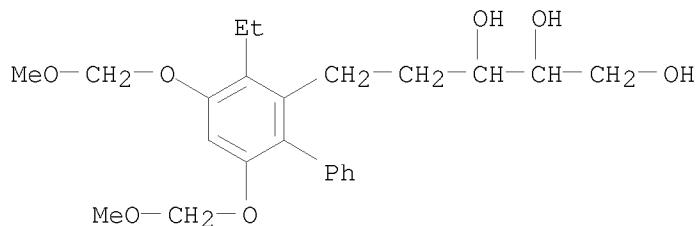
CN [1,1'-Biphenyl]-2-propanol,  $\alpha$ -ethenyl-3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860157-20-6 CAPLUS

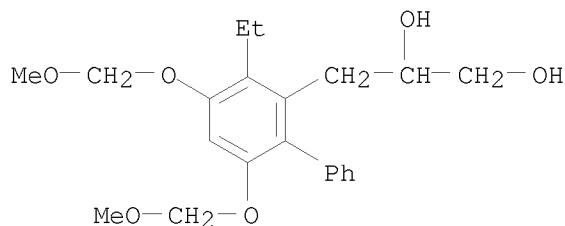
10584234

CN Pentitol, 1,2-dideoxy-1-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]-(9CI) (CA INDEX NAME)



RN 860157-21-7 CAPLUS

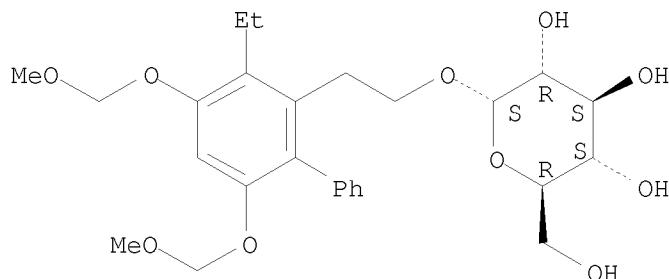
CN 1,2-Propanediol, 3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]-(CA INDEX NAME)



RN 860157-22-8 CAPLUS

CN  $\alpha$ -D-Glucopyranoside, 2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl (CA INDEX NAME)

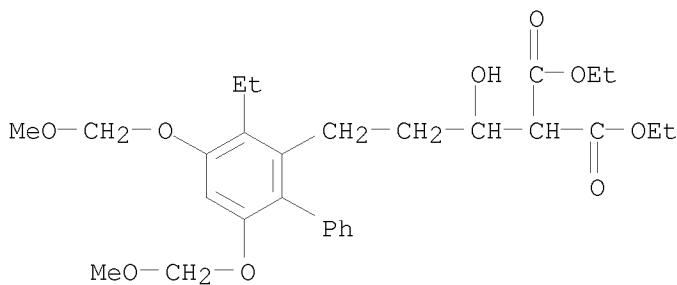
Absolute stereochemistry.



RN 860157-23-9 CAPLUS

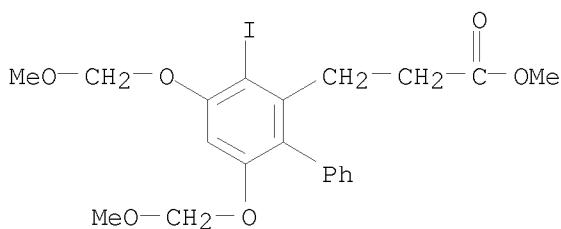
CN Propanedioic acid, [3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]-1-hydroxypropyl]-, diethyl ester (9CI) (CA INDEX NAME)

10584234



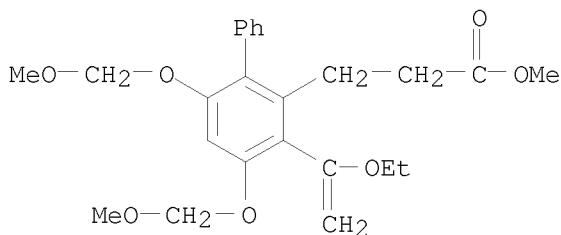
RN 860157-25-1 CAPLUS

CN [1,1'-Biphenyl]-2-propanoic acid, 3-iodo-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



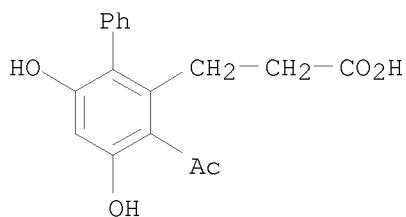
RN 860157-26-2 CAPLUS

CN [1,1'-Biphenyl]-2-propanoic acid, 3-(1-ethoxyethenyl)-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



RN 860157-27-3 CAPLUS

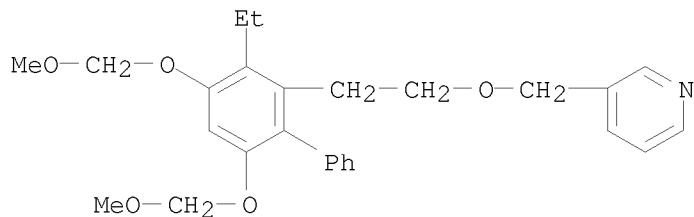
CN [1,1'-Biphenyl]-2-propanoic acid, 3-acetyl-4,6-dihydroxy- (CA INDEX NAME)



RN 860157-28-4 CAPLUS

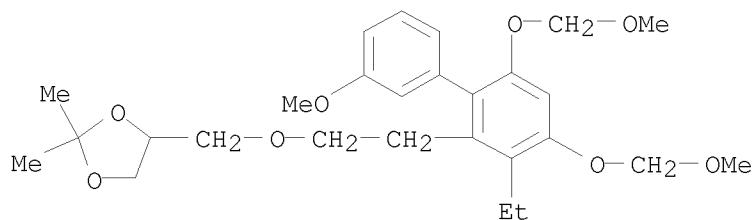
CN Pyridine, 3-[(2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy)methyl]- (CA INDEX NAME)

10584234



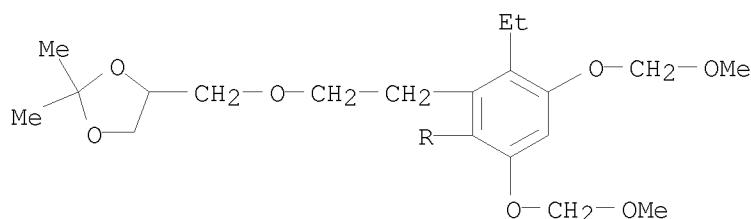
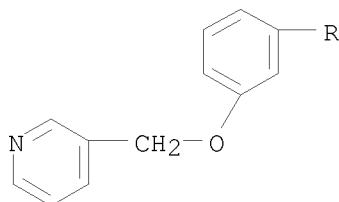
RN 860157-29-5 CAPLUS

CN 1,3-Dioxolane, 4-[2-[3-ethyl-3'-methoxy-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethoxy]methyl]-2,2-dimethyl- (CA INDEX NAME)



RN 860157-30-8 CAPLUS

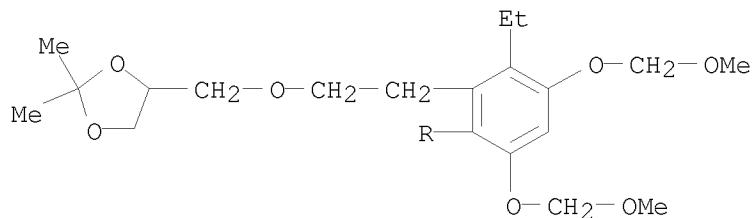
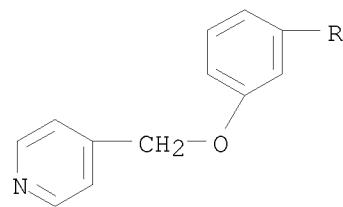
CN Pyridine, 3-[[[2'-[2-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]ethyl]-3'-ethyl-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]oxy]methyl]- (CA INDEX NAME)



RN 860157-31-9 CAPLUS

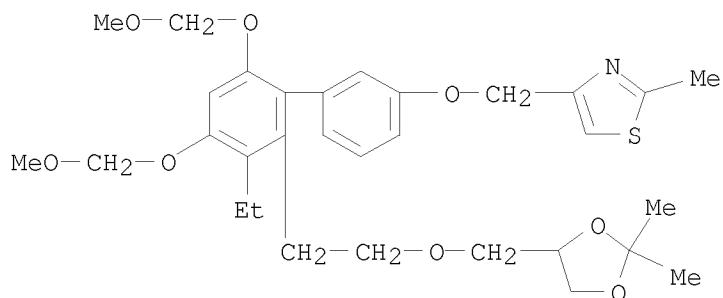
CN Pyridine, 4-[[[2'-[2-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]ethyl]-3'-ethyl-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]oxy]methyl]- (CA INDEX NAME)

10584234



RN 860157-32-0 CAPLUS

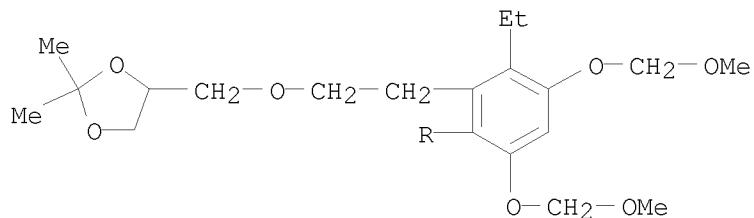
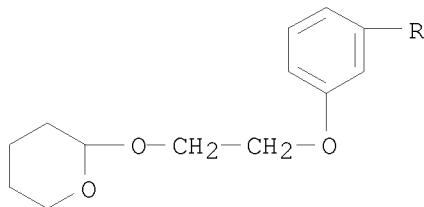
CN Thiazole, 4-[[2'-(2-[2-(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]ethyl)-3'-ethyl-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]oxy]methyl-2-methyl-  
(CA INDEX NAME)



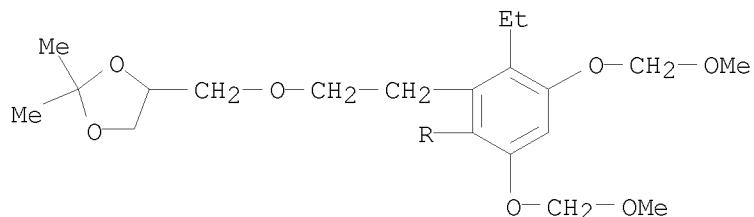
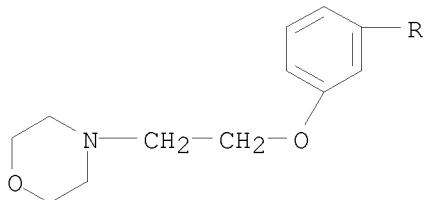
RN 860157-33-1 CAPLUS

CN 2H-Pyran, 2-[2-[2-[2-(2-dimethyl-1,3-dioxolan-4-yl)methoxy]ethyl]-3'-ethyl-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yl]oxy]tetrahydro-  
(CA INDEX NAME)

10584234

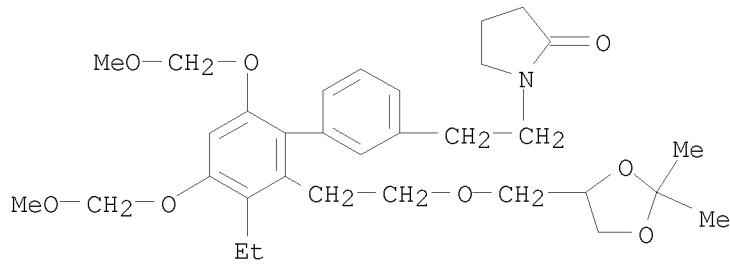


RN 860157-34-2 CAPLUS  
CN Morpholine, 4-[2-[[2'-(2-[(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy]ethyl)-3'-ethyl-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yloxy]ethyl]- (CA INDEX NAME)



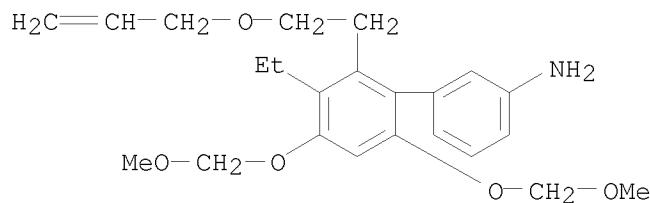
RN 860157-35-3 CAPLUS  
CN 2-Pyrrolidinone, 1-[2-[(2R,3S)-2-(2-methoxyethyl)-3-(2-methoxyethyl)-1,3-dioxolan-4-yl]ethyl]-3'-ethyl-4',6'-bis(methoxymethoxy)[1,1'-biphenyl]-3-yloxy]ethyl]- (CA INDEX NAME)

10584234



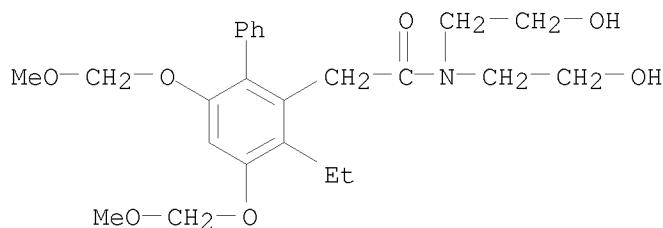
RN 860157-36-4 CAPLUS

CN [1,1'-Biphenyl]-3-amine, 3'-ethyl-4',6'-bis(methoxymethoxy)-2'-(2-propenyl)ethoxy- (9CI) (CA INDEX NAME)



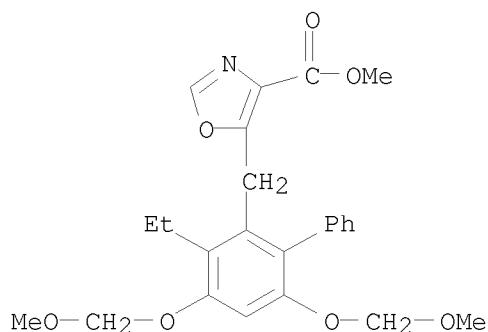
RN 860157-37-5 CAPLUS

CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-N,N-bis(2-hydroxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860157-40-0 CAPLUS

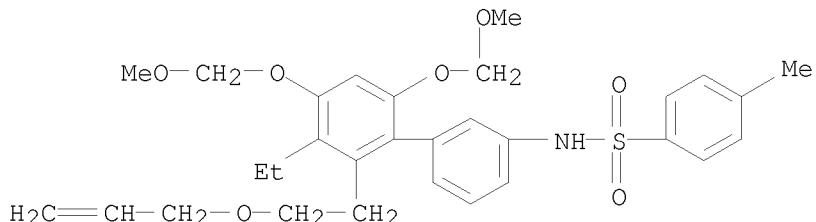
CN 4-Oxazolecarboxylic acid, 5-[(3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl)methyl]methyl ester (CA INDEX NAME)



10584234

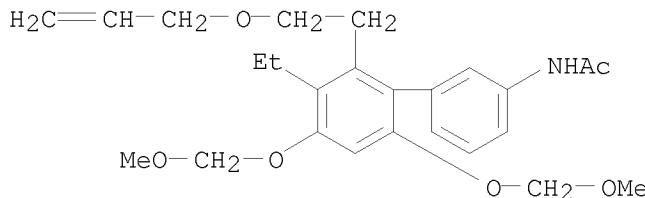
RN 860157-41-1 CAPLUS

CN Benzenesulfonamide, N-[3'-ethyl-4',6'-bis(methoxymethoxy)-2'-(2-propenylloxy)ethyl][1,1'-biphenyl]-3-yl]-4-methyl- (9CI) (CA INDEX NAME)



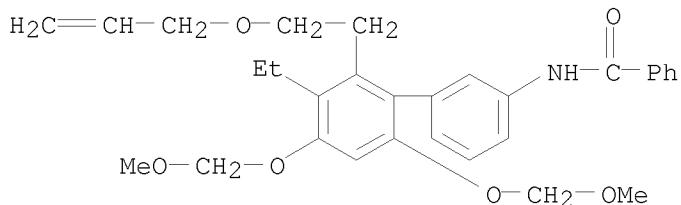
RN 860157-42-2 CAPLUS

CN Acetamide, N-[3'-ethyl-4',6'-bis(methoxymethoxy)-2'-(2-propenylloxy)ethyl][1,1'-biphenyl]-3-yl]- (9CI) (CA INDEX NAME)



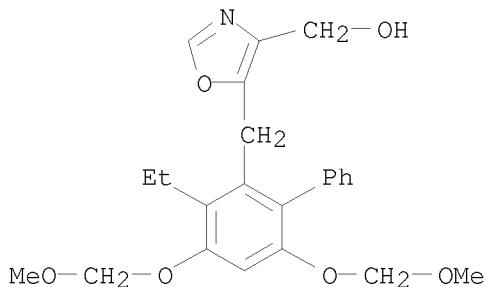
RN 860157-43-3 CAPLUS

CN Benzamide, N-[3'-ethyl-4',6'-bis(methoxymethoxy)-2'-(2-propenylloxy)ethyl][1,1'-biphenyl]-3-yl]- (9CI) (CA INDEX NAME)



RN 860157-44-4 CAPLUS

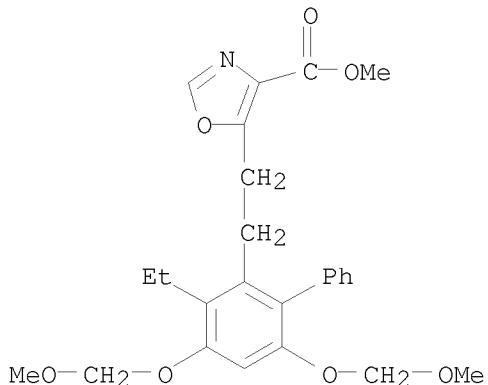
CN 4-Oxazolemethanol, 5-[[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]methyl]- (CA INDEX NAME)



10584234

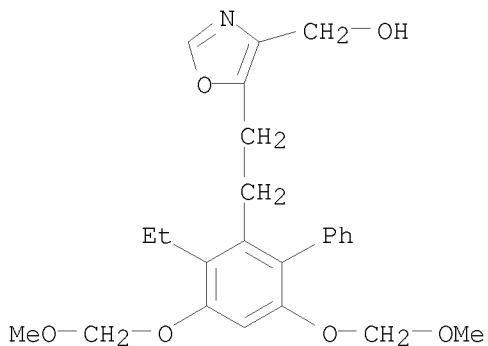
RN 860157-45-5 CAPLUS

CN 4-Oxazolecarboxylic acid, 5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]-, methyl ester (CA INDEX NAME)



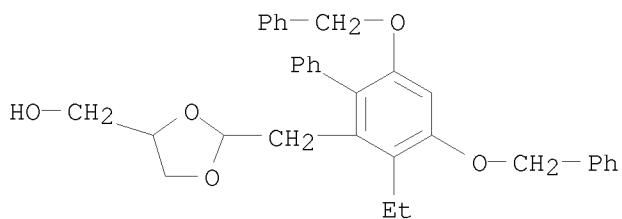
RN 860157-46-6 CAPLUS

CN 4-Oxazolemethanol, 5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]- (CA INDEX NAME)



RN 860157-47-7 CAPLUS

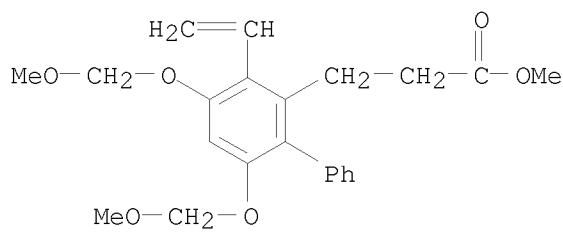
CN 1,3-Dioxolane-4-methanol, 2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]- (CA INDEX NAME)



RN 860157-48-8 CAPLUS

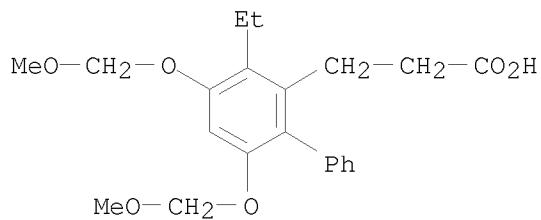
CN [1,1'-Biphenyl]-2-propanoic acid, 3-ethenyl-4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)

10584234



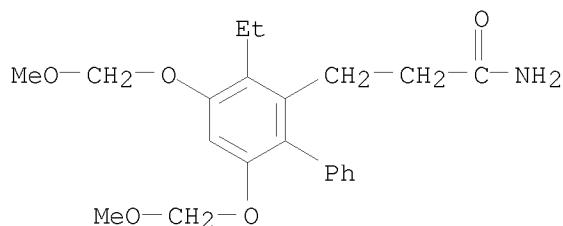
RN 860157-49-9 CAPLUS

CN [1,1'-Biphenyl]-2-propanoic acid, 3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



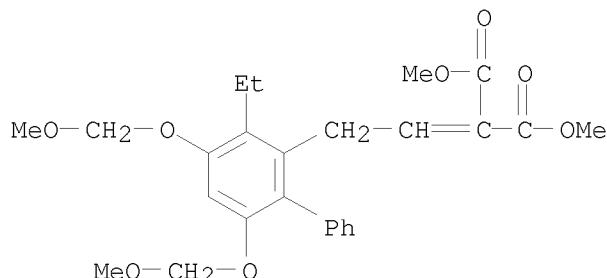
RN 860157-50-2 CAPLUS

CN [1,1'-Biphenyl]-2-propanamide, 3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860157-51-3 CAPLUS

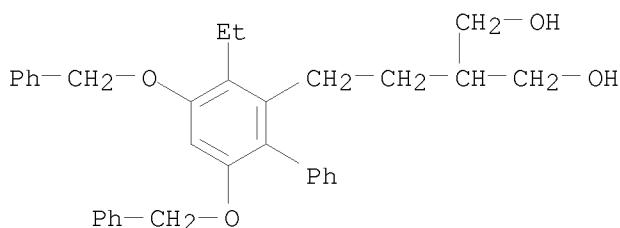
CN Propanedioic acid, [2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethylidene]-, dimethyl ester (9CI) (CA INDEX NAME)



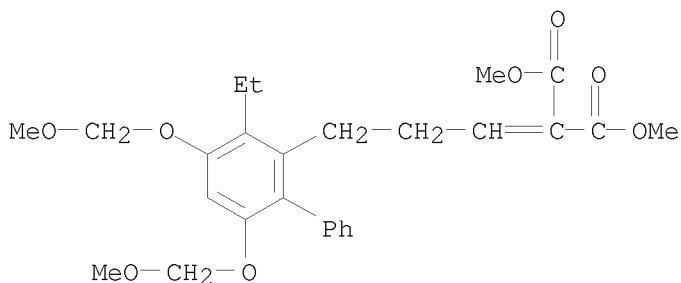
RN 860157-56-8 CAPLUS

CN 1,3-Propanediol, 2-[2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethyl]- (CA INDEX NAME)

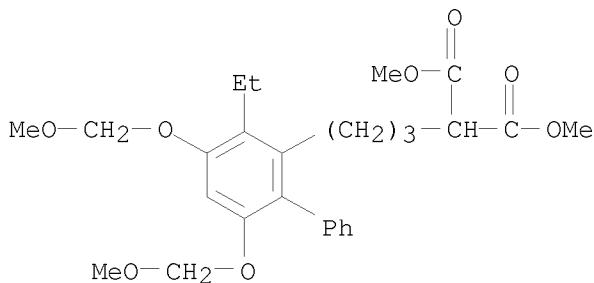
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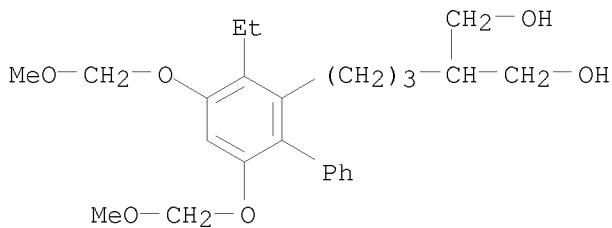
RN 860157-57-9 CAPLUS  
CN Propanedioic acid, [3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propylidene]-, dimethyl ester (9CI) (CA INDEX NAME)



RN 860157-58-0 CAPLUS  
CN Propanedioic acid, [3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propyl]-, dimethyl ester (9CI) (CA INDEX NAME)



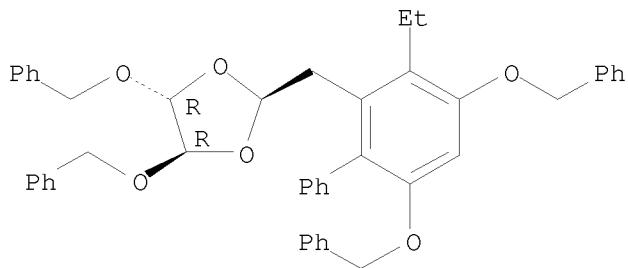
RN 860157-59-1 CAPLUS  
CN 1,3-Propanediol, 2-[3-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]propyl]— (CA INDEX NAME)



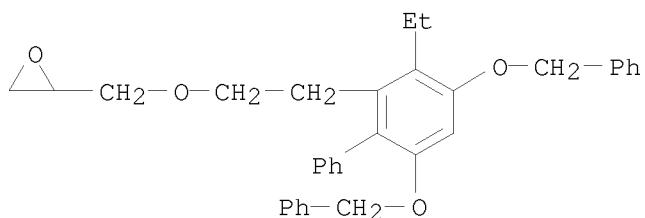
10584234

RN 860157-60-4 CAPLUS  
CN 1,3-Dioxolane, 2-[[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis(phenylmethoxy)-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI)  
(CA INDEX NAME)

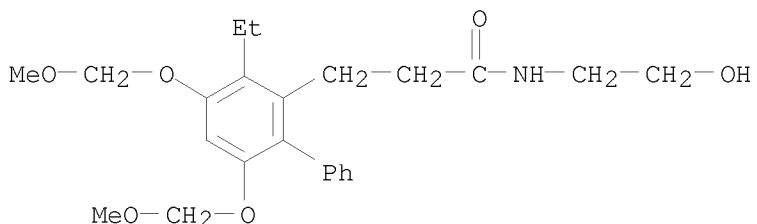
Absolute stereochemistry.



RN 860157-64-8 CAPLUS  
CN Oxirane, [2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethoxy]methyl- (9CI) (CA INDEX NAME)

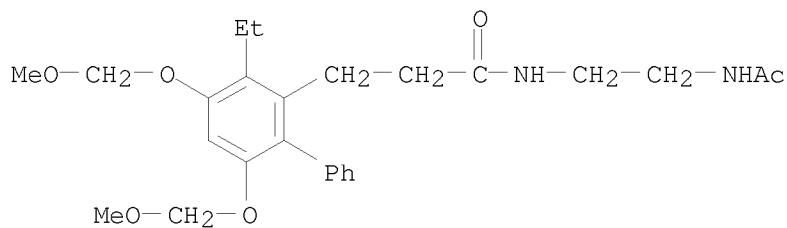


RN 860157-65-9 CAPLUS  
CN [1,1'-Biphenyl]-2-propanamide, 3-ethyl-N-(2-hydroxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



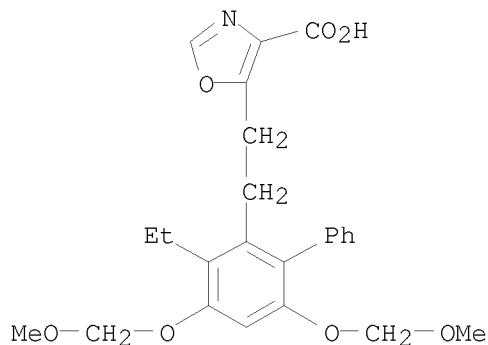
RN 860157-66-0 CAPLUS  
CN [1,1'-Biphenyl]-2-propanamide, N-[2-(acetylamino)ethyl]-3-ethyl-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

10584234



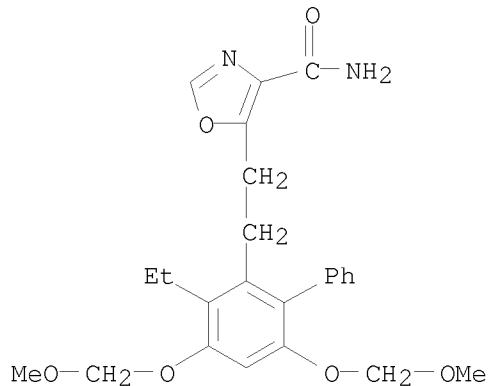
RN 860157-67-1 CAPLUS

CN 4-Oxazolecarboxylic acid, 5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]- (CA INDEX NAME)



RN 860157-68-2 CAPLUS

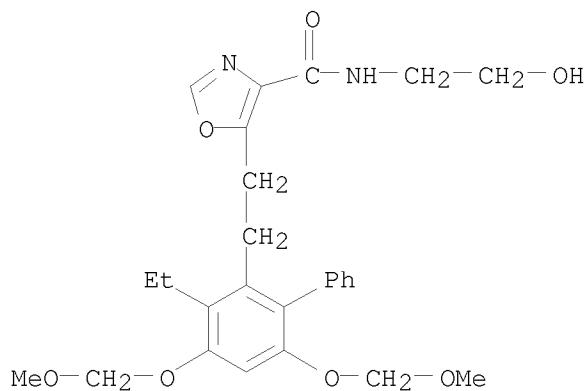
CN 4-Oxazolecarboxamide, 5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]- (CA INDEX NAME)



RN 860157-69-3 CAPLUS

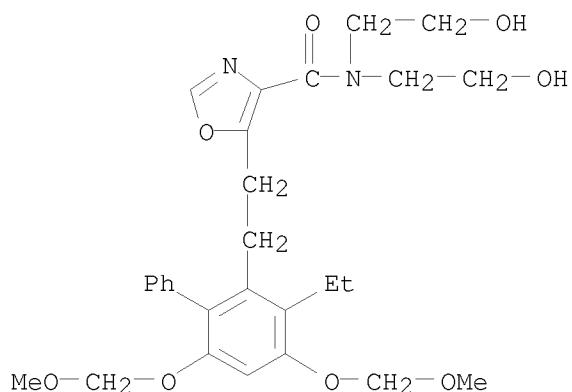
CN 4-Oxazolecarboxamide, 5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]-N-(2-hydroxyethyl)- (CA INDEX NAME)

10584234



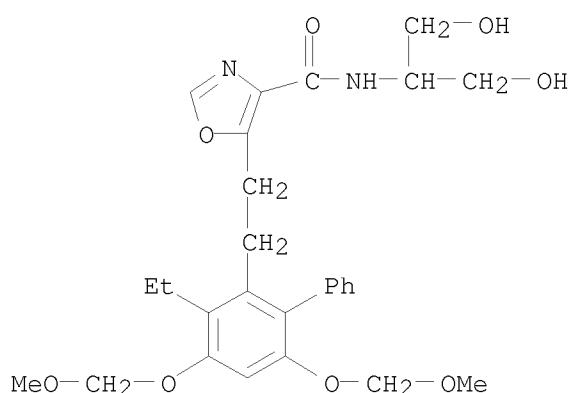
RN 860157-70-6 CAPLUS

CN 4-Oxazolecarboxamide, 5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]-N,N-bis(2-hydroxyethyl)- (CA INDEX NAME)



RN 860157-71-7 CAPLUS

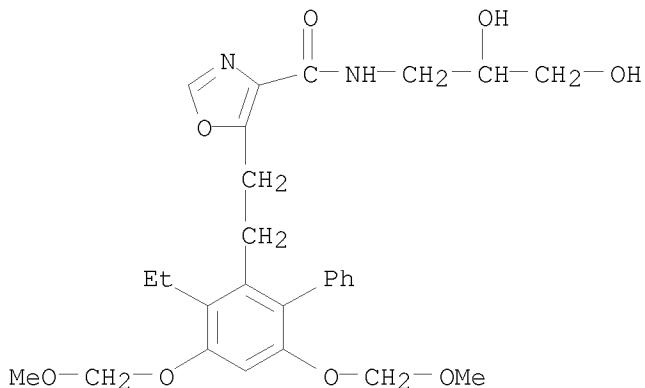
CN 4-Oxazolecarboxamide, 5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]-N-[2-hydroxy-1-(hydroxymethyl)ethyl]- (CA INDEX NAME)



RN 860157-72-8 CAPLUS

10584234

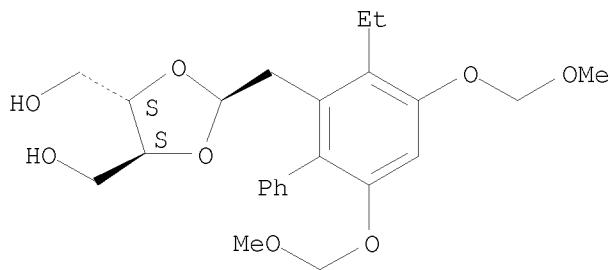
CN 4-Oxazolecarboxamide, N-(2,3-dihydroxypropyl)-5-[2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]ethyl]- (CA INDEX NAME)



RN 860157-73-9 CAPLUS

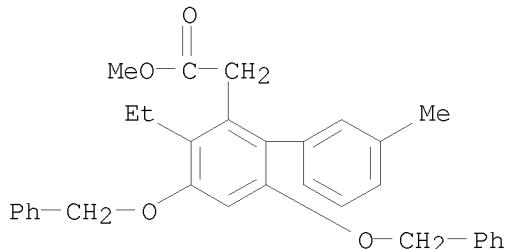
CN 1,3-Dioxolane-4,5-dimethanol, 2-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]methyl-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 860157-75-1 CAPLUS

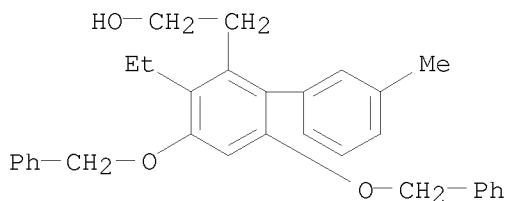
CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-3'-methyl-4,6-bis(phenylmethoxy)-, methyl ester (CA INDEX NAME)



RN 860157-76-2 CAPLUS

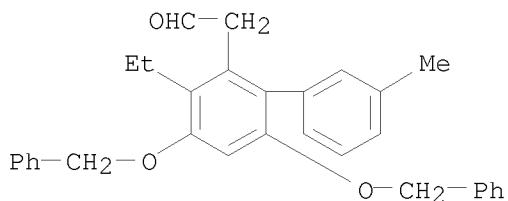
CN [1,1'-Biphenyl]-2-ethanol, 3-ethyl-3'-methyl-4,6-bis(phenylmethoxy)- (CA INDEX NAME)

10584234



RN 860157-77-3 CAPLUS

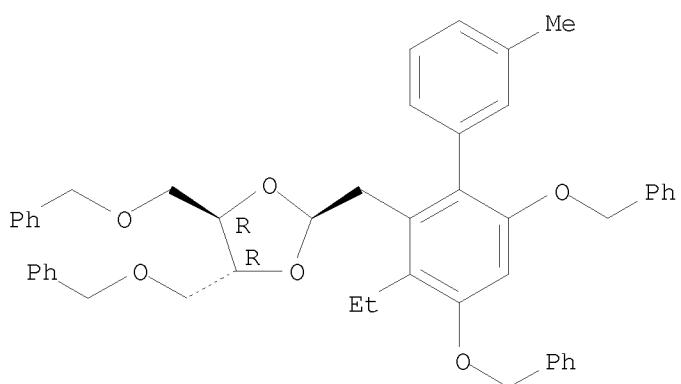
CN [1,1'-Biphenyl]-2-acetaldehyde, 3-ethyl-3'-methyl-4,6-bis(phenylmethoxy)-  
(CA INDEX NAME)



RN 860157-78-4 CAPLUS

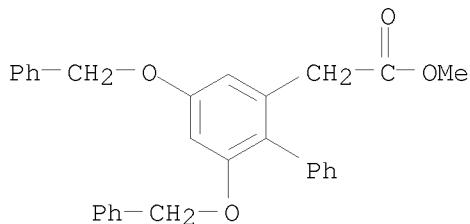
CN 1,3-Dioxolane, 2-[[3-ethyl-3'-methyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 860157-79-5 CAPLUS

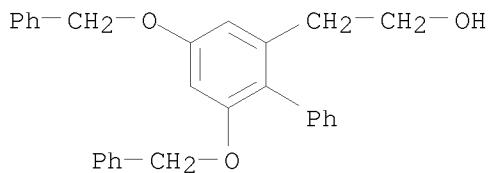
CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(phenylmethoxy)-, methyl ester (CA INDEX NAME)



10584234

RN 860157-80-8 CAPLUS

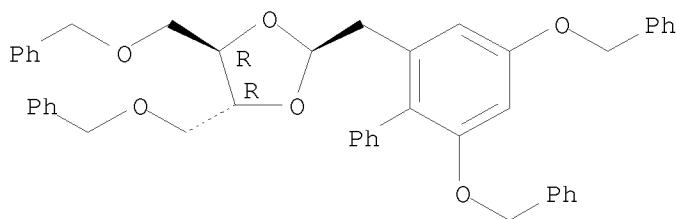
CN [1,1'-Biphenyl]-2-ethanol, 4,6-bis(phenylmethoxy)- (CA INDEX NAME)



RN 860157-81-9 CAPLUS

CN 1,3-Dioxolane, 2-[[4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

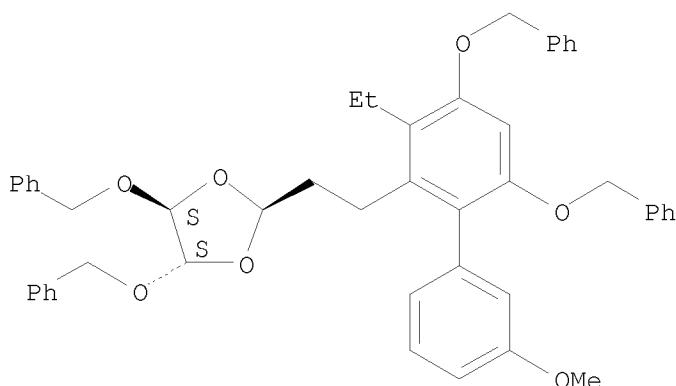
Absolute stereochemistry.



RN 860157-85-3 CAPLUS

CN 1,3-Dioxolane, 2-[2-[3-ethyl-3'-methoxy-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethyl]-4,5-bis(phenylmethoxy)-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

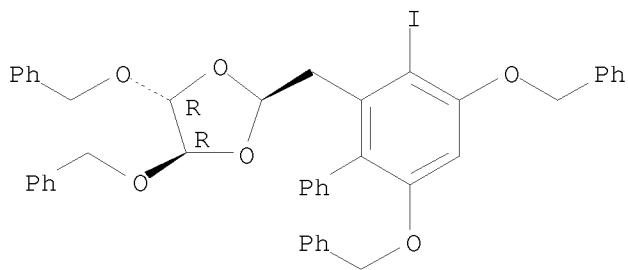


RN 860157-86-4 CAPLUS

CN 1,3-Dioxolane, 2-[[3-iodo-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis(phenylmethoxy)-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

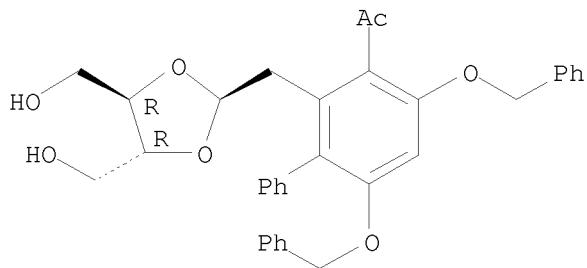
10584234



RN 860157-87-5 CAPLUS

CN Ethanone, 1-[2-[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis(hydroxymethyl)-1,3-dioxolan-2-yl]methyl]-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-3-yl]- (9CI) (CA INDEX NAME)

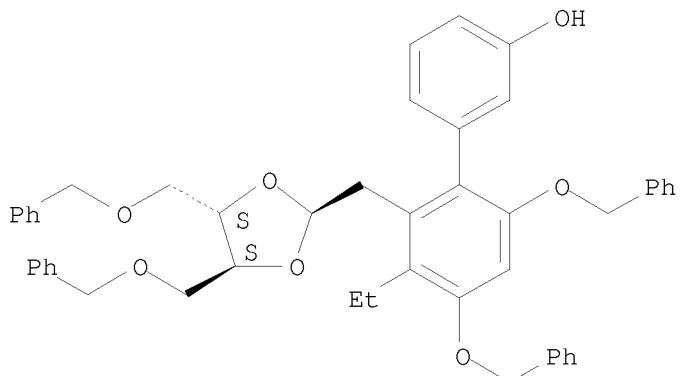
Absolute stereochemistry.



RN 860158-52-7 CAPLUS

CN [1,1'-Biphenyl]-3-ol, 2'-[[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

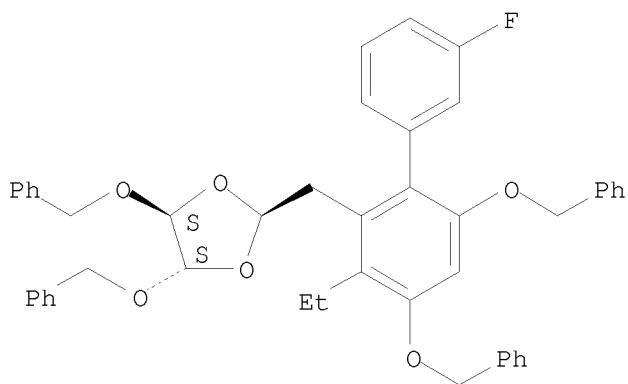
Absolute stereochemistry.



RN 860158-53-8 CAPLUS

CN 1,3-Dioxolane, 2-[[3-ethyl-3'-fluoro-4,5-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis(phenylmethoxy)-, (2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 860158-54-9P 860158-55-0P 860158-58-3P  
 860158-59-4P 860158-60-7P 860158-61-8P  
 860158-62-9P 860158-63-0P 860158-64-1P  
 860158-65-2P 860158-67-4P 860158-68-5P  
 860158-69-6P 860158-70-9P 860158-71-0P  
 860158-72-1P 860158-73-2P 860158-74-3P  
 860158-75-4P 860158-76-5P 860158-79-8P  
 860158-80-1P 860158-83-4P 860158-88-9P  
 860158-89-0P 860158-90-3P 860158-92-5P  
 860158-93-6P 860158-94-7P 860158-95-8P  
 860158-96-9P 860158-97-0P 860158-98-1P  
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 860159-02-0P 860159-03-1P 860159-08-6P  
 860159-10-0P 860159-15-5P 860159-16-6P  
 860174-20-5P 860174-23-8P 860174-25-0P  
 860174-26-1P 860174-27-2P 860293-49-8P  
 860293-51-2P 860293-52-3P 860293-53-4P  
 860293-54-5P 860293-55-6P 860293-56-7P  
 860293-58-9P 860293-59-0P 860293-60-3P  
 860293-61-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

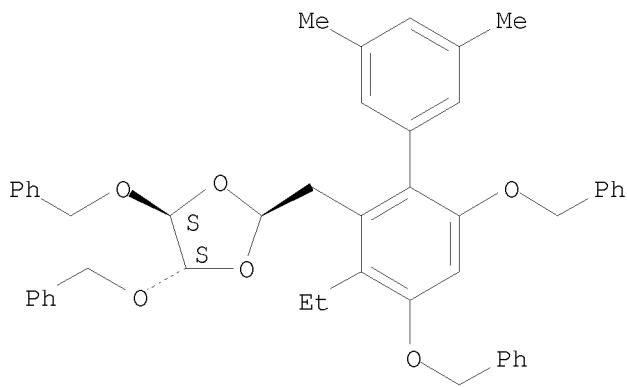
(benzene derivs. as Hsp90 family protein inhibitors and antitumor agents)

RN 860158-54-9 CAPLUS

CN 1,3-Dioxolane, 2-[[3-ethyl-3',5'-dimethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis(phenylmethoxy)-,  
 (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

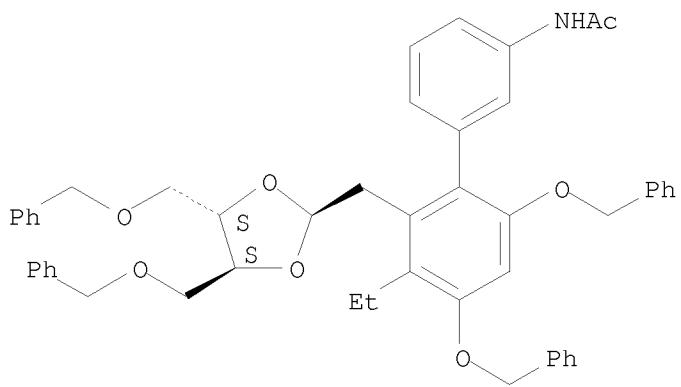
10584234



RN 860158-55-0 CAPLUS

CN Acetamide, N-[2'-([(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)[1,1'-biphenyl]-3-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

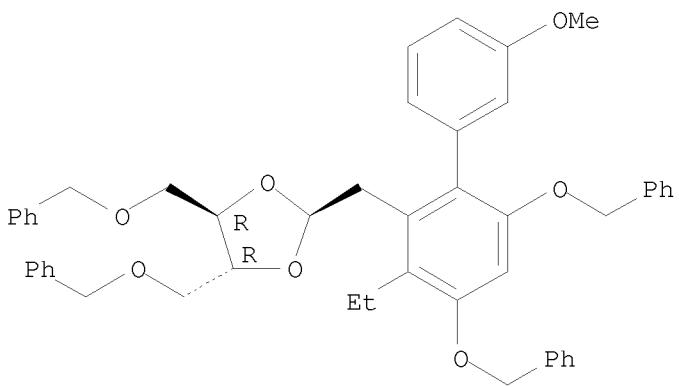


RN 860158-58-3 CAPLUS

CN 1,3-Dioxolane, 2-[(3-ethyl-3'-methoxy-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl)methyl]-4,5-bis(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

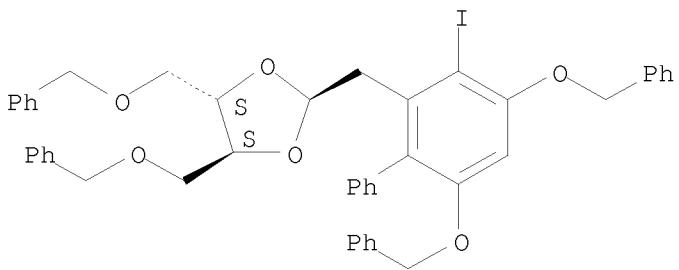
10584234



RN 860158-59-4 CAPLUS

CN 1,3-Dioxolane, 2-[3-iodo-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

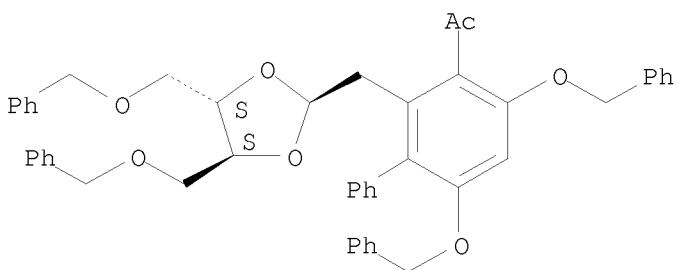
Absolute stereochemistry.



RN 860158-60-7 CAPLUS

CN Ethanone, 1-[2-[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-3-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

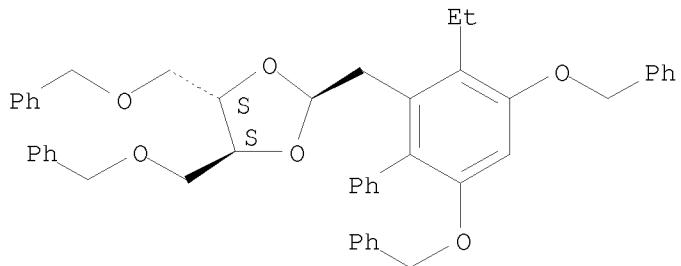


RN 860158-61-8 CAPLUS

CN 1,3-Dioxolane, 2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

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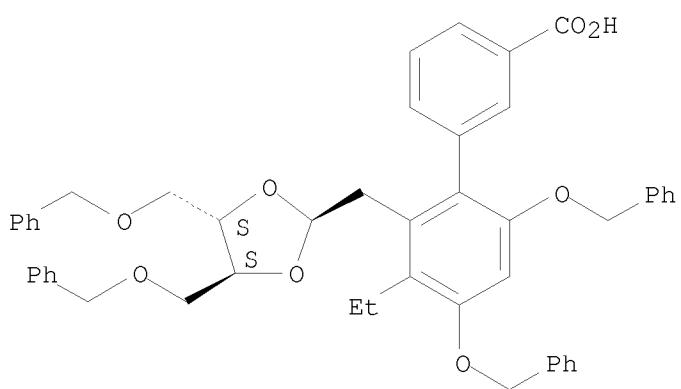
Absolute stereochemistry.



RN 860158-62-9 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 2'-[[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

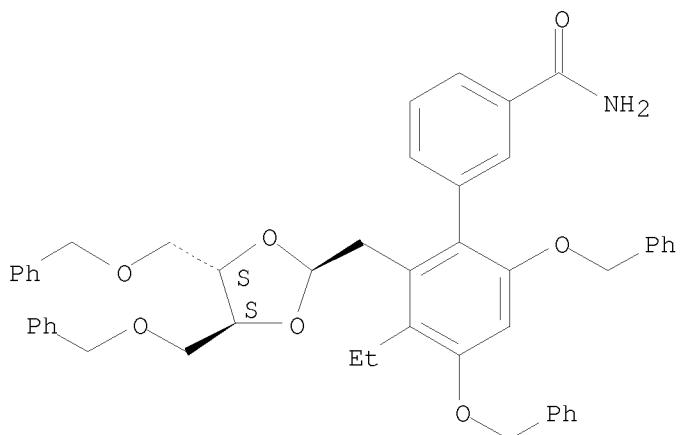
Absolute stereochemistry.



RN 860158-63-0 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

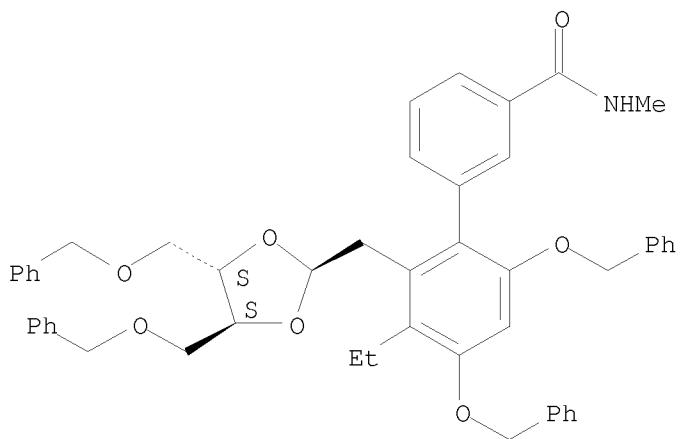


10584234

RN 860158-64-1 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-N-methyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

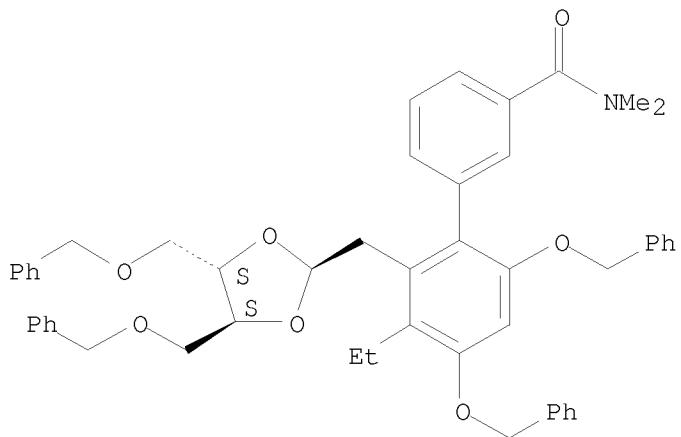
Absolute stereochemistry.



RN 860158-65-2 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-N,N-dimethyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

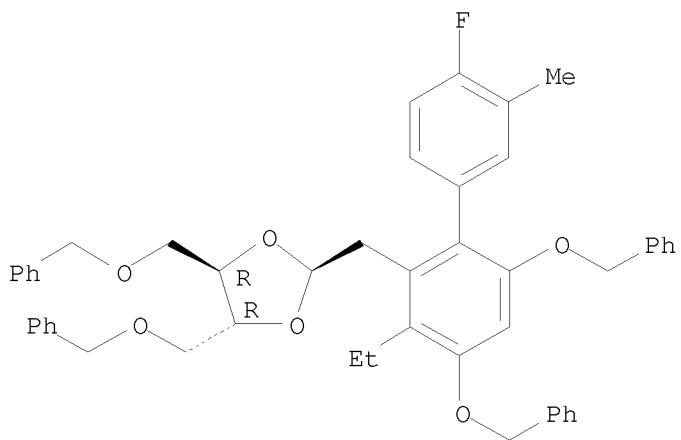


RN 860158-67-4 CAPLUS

CN 1,3-Dioxolane, 2-[[3-ethyl-4'-fluoro-3'-methyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

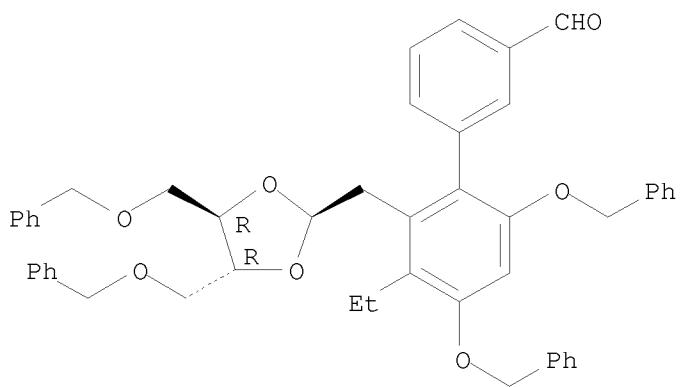
10584234



RN 860158-68-5 CAPLUS

CN [1,1'-Biphenyl]-3-carboxaldehyde, 2'-[[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

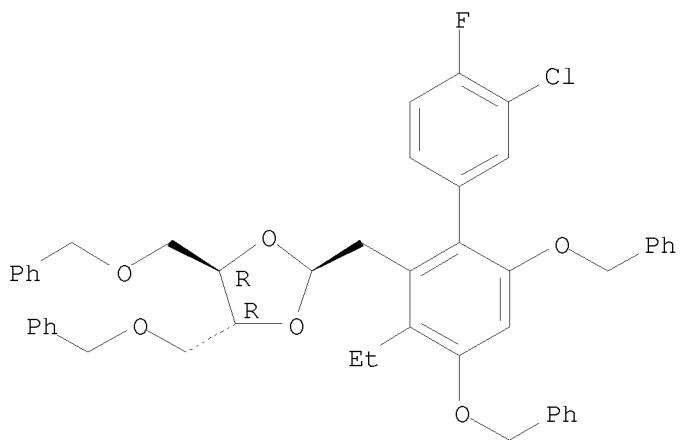


RN 860158-69-6 CAPLUS

CN 1,3-Dioxolane, 2-[[3'-chloro-3-ethyl-4'-fluoro-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

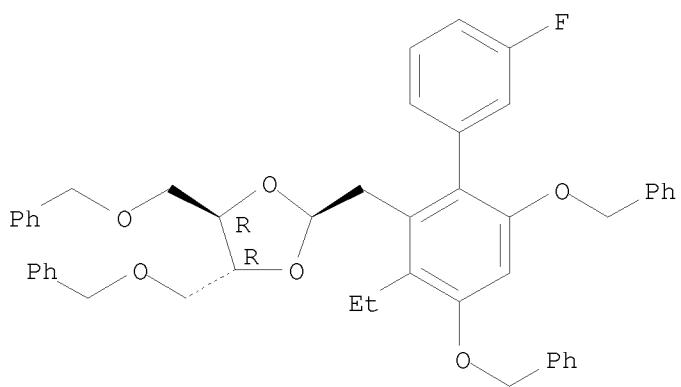
10584234



RN 860158-70-9 CAPLUS

CN 1,3-Dioxolane, 2-[3-ethyl-3'-fluoro-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-ylmethyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

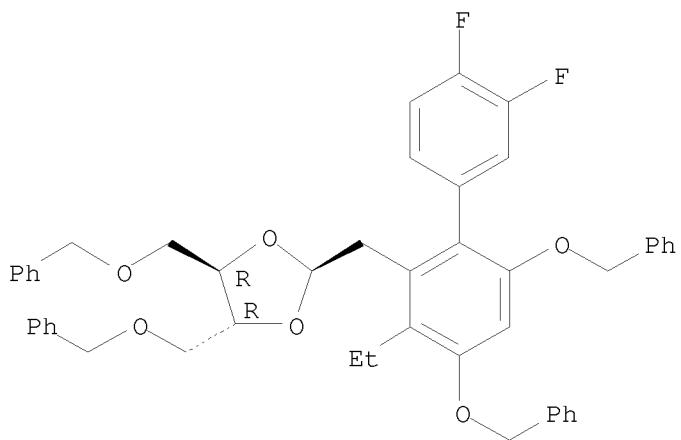


RN 860158-71-0 CAPLUS

CN 1,3-Dioxolane, 2-[3-ethyl-3',4'-difluoro-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-ylmethyl]-4,5-bis[(phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

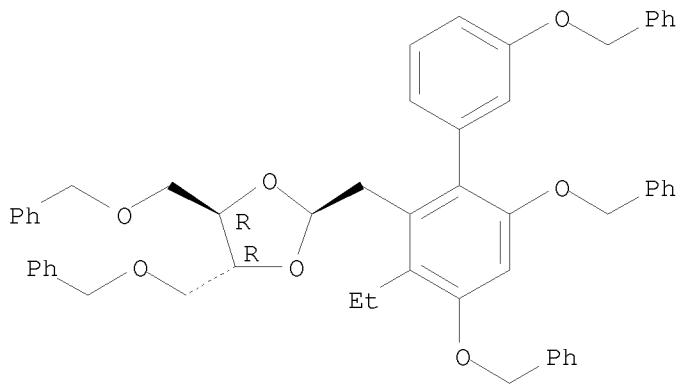
10584234



RN 860158-72-1 CAPLUS

CN 1,3-Dioxolane, 2-[ [3-ethyl-3',4,6-tris(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[ (phenylmethoxy)methyl]-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

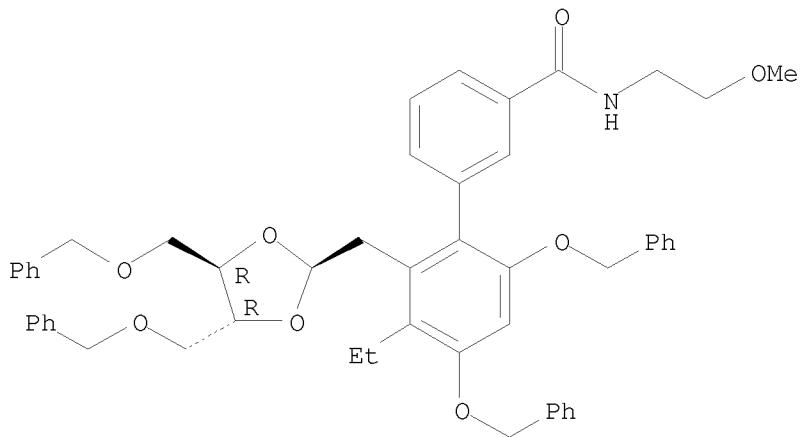


RN 860158-73-2 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'--[ [4,5-bis[ (phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-N-(2-methoxyethyl)-4',6'-bis(phenylmethoxy)-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

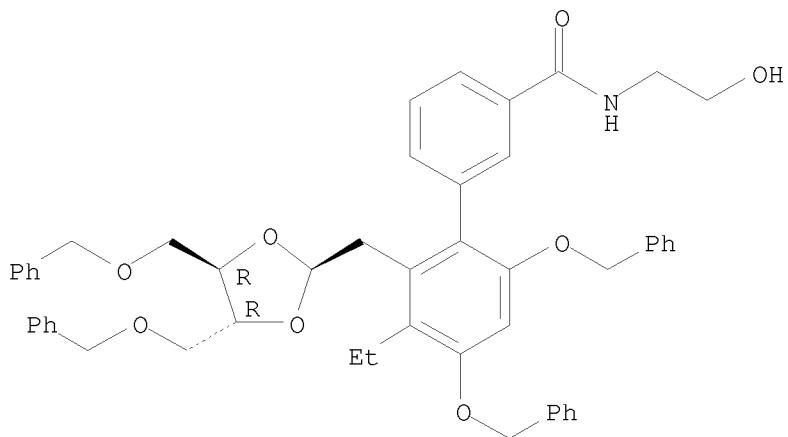
10584234



RN 860158-74-3 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-N-(2-hydroxyethyl)-4',6'-bis(phenylmethoxy)-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

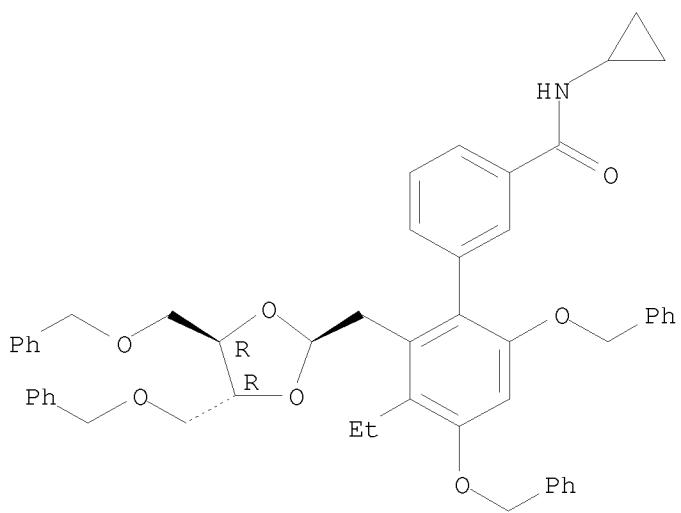


RN 860158-75-4 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[(2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-N-cyclopropyl-3'-ethyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

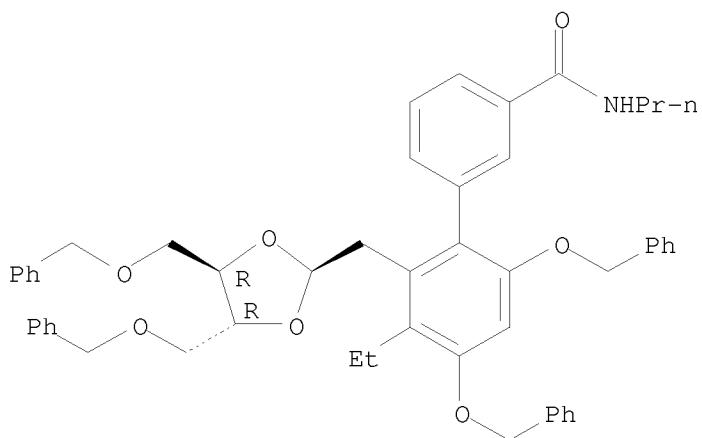
10584234



RN 860158-76-5 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-[[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)-N-propyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

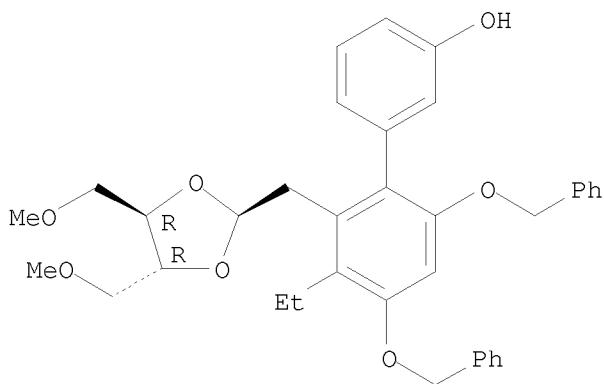


RN 860158-79-8 CAPLUS

CN [1,1'-Biphenyl]-3-ol, 2'-[[(2 $\alpha$ , 4 $\alpha$ , 5 $\beta$ )-4,5-bis(methoxymethyl)-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

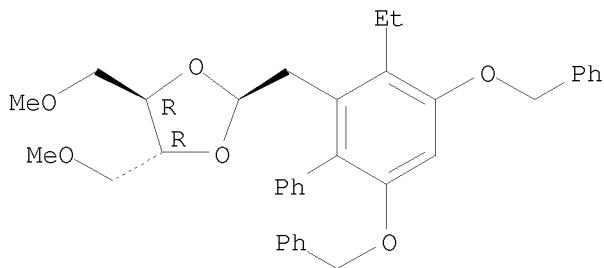
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RN 860158-80-1 CAPLUS

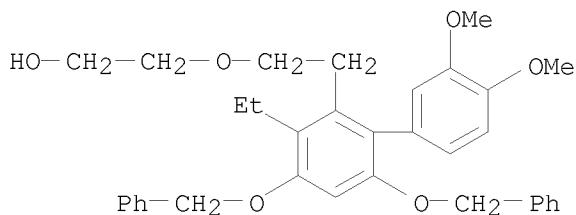
CN 1,3-Dioxolane, 2-[[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis(methoxymethyl)-, (2 $\alpha$ ,4 $\alpha$ ,5 $\beta$ )- (9CI)  
(CA INDEX NAME)

Absolute stereochemistry.



RN 860158-83-4 CAPLUS

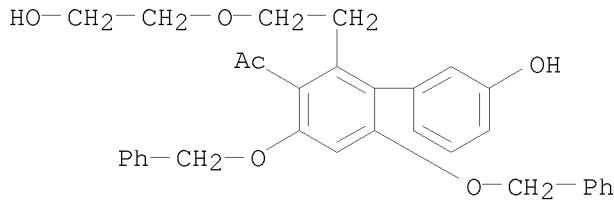
CN Ethanol, 2-[[2-[3-ethyl-3',4'-dimethoxy-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (CA INDEX NAME)



RN 860158-88-9 CAPLUS

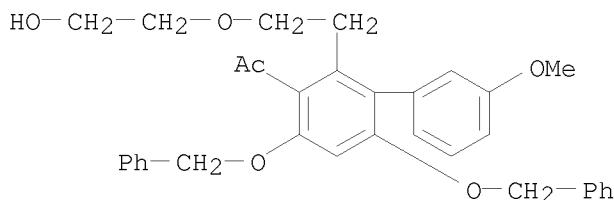
CN Ethanone, 1-[[3'-hydroxy-2-(2-hydroxyethoxy)ethyl]-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)

10584234



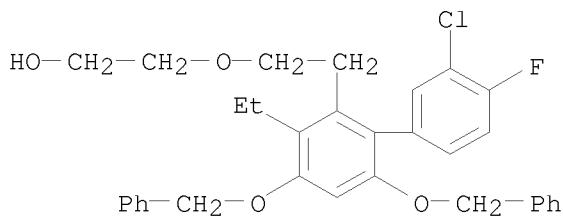
RN 860158-89-0 CAPLUS

CN Ethanone, 1-[2-[2-(2-hydroxyethoxy)ethyl]-3'-methoxy-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-3-yl]- (CA INDEX NAME)



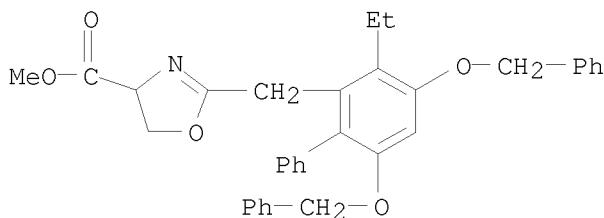
RN 860158-90-3 CAPLUS

CN Ethanol, 2-[2-[3'-chloro-3-ethyl-4'-fluoro-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (CA INDEX NAME)



RN 860158-92-5 CAPLUS

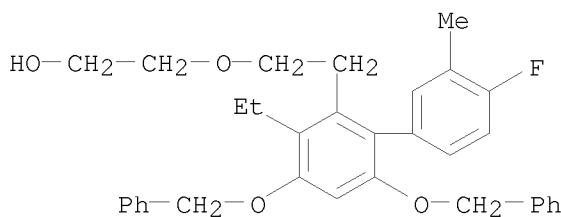
CN 4-Oxazolecarboxylic acid, 2-[[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-dihydro-, methyl ester (CA INDEX NAME)



RN 860158-93-6 CAPLUS

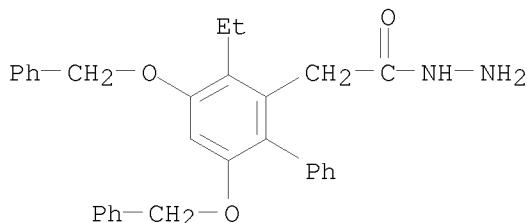
CN Ethanol, 2-[2-[3-ethyl-4'-fluoro-3'-methyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethoxy]- (CA INDEX NAME)

10584234



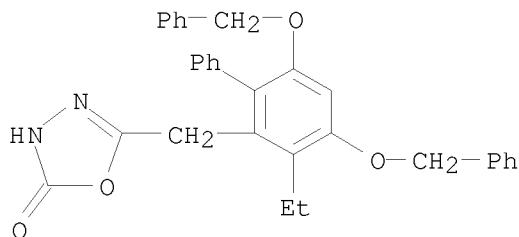
RN 860158-94-7 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 3-ethyl-4,6-bis(phenylmethoxy)-, hydrazide  
(CA INDEX NAME)



RN 860158-95-8 CAPLUS

CN 1,3,4-Oxadiazol-2(3H)-one, 5-[[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]- (CA INDEX NAME)



RN 860158-96-9 CAPLUS

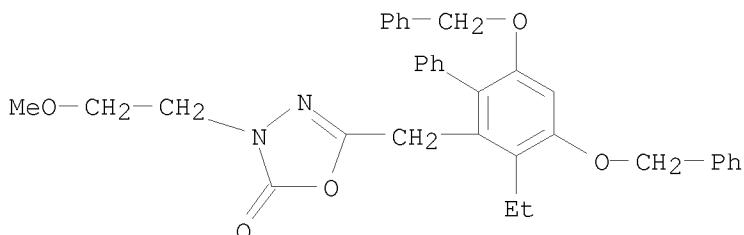
CN 2-Pyrrolidinemethanol, 1-[2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethyl]- (CA INDEX NAME)



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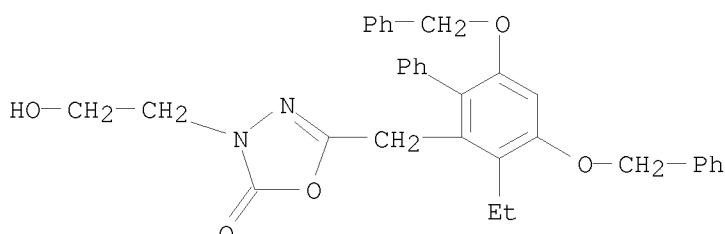
RN 860158-97-0 CAPLUS

CN 1,3,4-Oxadiazol-2(3H)-one, 5-[ [3-ethyl-4,6-bis(phenylmethoxy) [1,1'-biphenyl]-2-yl]methyl]-3-(2-methoxyethyl)- (CA INDEX NAME)



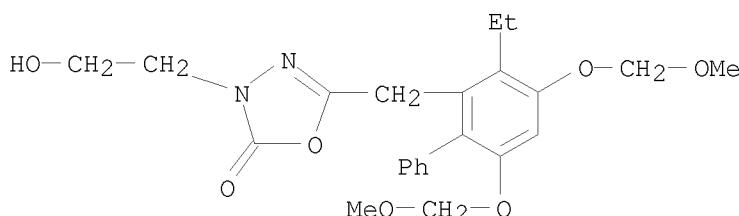
RN 860158-98-1 CAPLUS

CN 1,3,4-Oxadiazol-2(3H)-one, 5-[ [3-ethyl-4,6-bis(phenylmethoxy) [1,1'-biphenyl]-2-yl]methyl]-3-(2-hydroxyethyl)- (CA INDEX NAME)



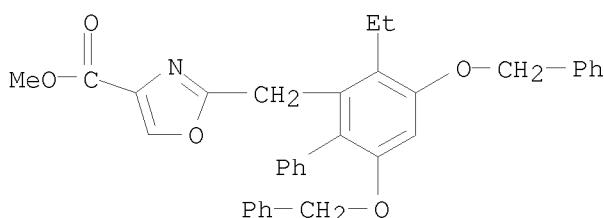
RN 860158-99-2 CAPLUS

CN 1,3,4-Oxadiazol-2(3H)-one, 5-[ [3-ethyl-4,6-bis(methoxymethoxy) [1,1'-biphenyl]-2-yl]methyl]-3-(2-hydroxyethyl)- (CA INDEX NAME)



RN 860159-00-8 CAPLUS

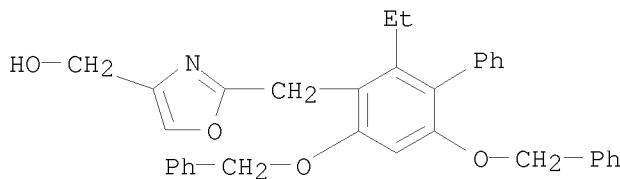
CN 4-Oxazolecarboxylic acid, 2-[ [3-ethyl-4,6-bis(phenylmethoxy) [1,1'-biphenyl]-2-yl]methyl]-, methyl ester (CA INDEX NAME)



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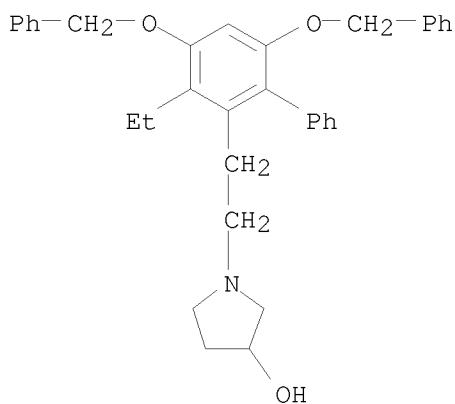
RN 860159-01-9 CAPLUS

CN 4-Oxazolemethanol, 2-[2-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-3-yl]methyl- (CA INDEX NAME)



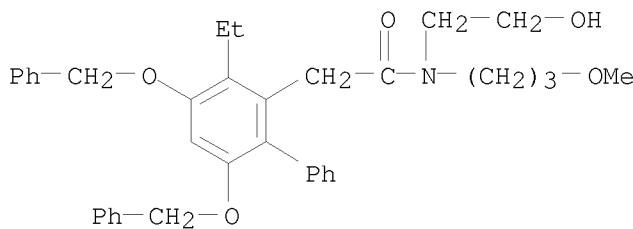
RN 860159-02-0 CAPLUS

CN 3-Pyrrolidinol, 1-[2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]ethyl- (CA INDEX NAME)



RN 860159-03-1 CAPLUS

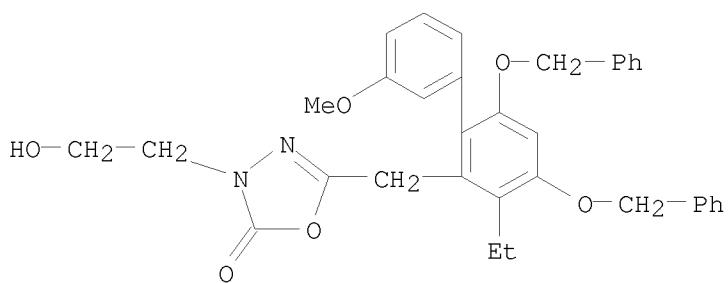
CN [1,1'-Biphenyl]-2-acetamide, 3-ethyl-N-(2-hydroxyethyl)-N-(3-methoxypropyl)-4,6-bis(phenylmethoxy)- (CA INDEX NAME)



RN 860159-08-6 CAPLUS

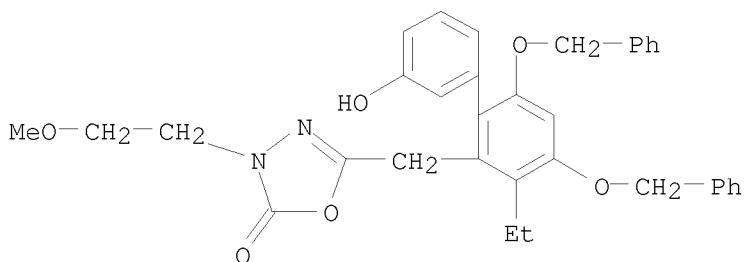
CN 1,3,4-Oxadiazol-2(3H)-one, 5-[3-ethyl-3'-methoxy-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-3-(2-hydroxyethyl)- (CA INDEX NAME)

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RN 860159-10-0 CAPLUS

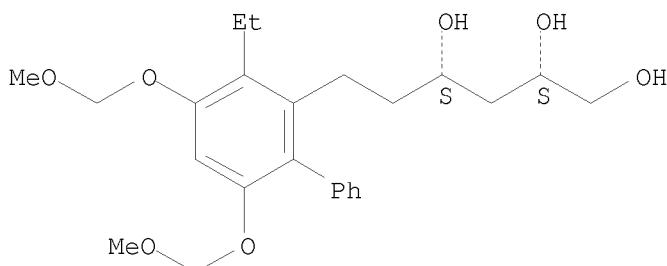
CN 1,3,4-Oxadiazol-2(3H)-one, 5-[3-ethyl-3'-hydroxy-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-3-(2-methoxyethyl)- (CA INDEX NAME)



RN 860159-15-5 CAPLUS

CN 1,2,4-Hexanetriol, 6-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]-, (2R,4R)-rel- (CA INDEX NAME)

Relative stereochemistry.

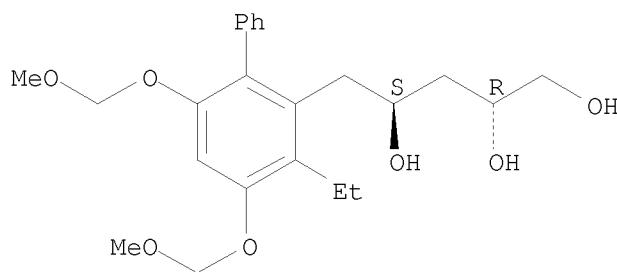


RN 860159-16-6 CAPLUS

CN threo-Pentitol, 1,3-dideoxy-1-[3-ethyl-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]- (CA INDEX NAME)

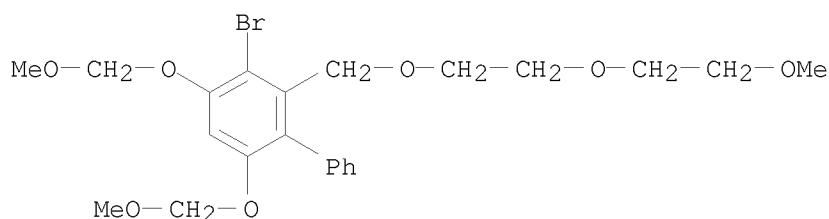
Relative stereochemistry.

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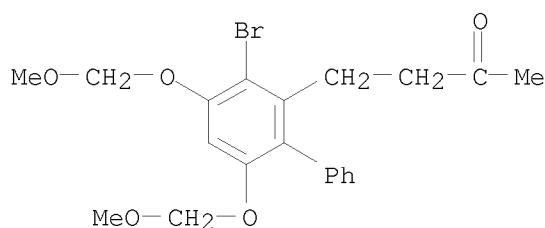
RN 860174-20-5 CAPLUS

CN 1,1'-Biphenyl, 3-bromo-2-[2-(2-methoxyethoxy)ethoxy]methyl]-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



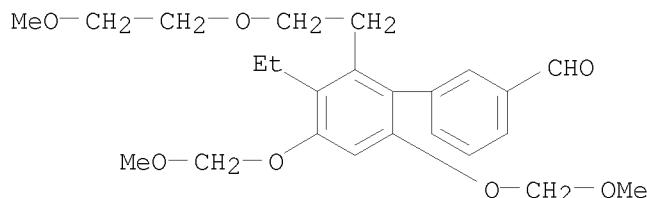
RN 860174-23-8 CAPLUS

CN 2-Butanone, 4-[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]- (CA INDEX NAME)



RN 860174-25-0 CAPLUS

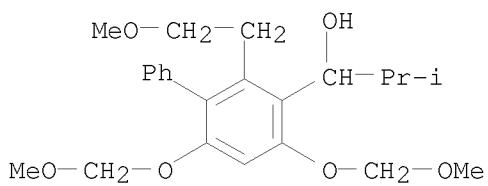
CN [1,1'-Biphenyl]-3-carboxaldehyde, 3'-ethyl-2'-[2-(2-methoxyethoxy)ethyl]-4',6'-bis(methoxymethoxy)- (CA INDEX NAME)



RN 860174-26-1 CAPLUS

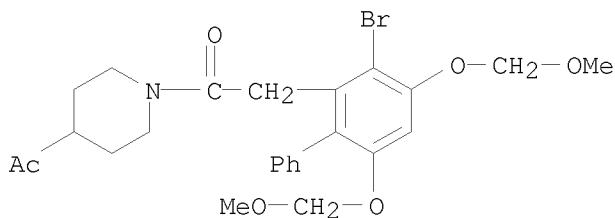
CN [1,1'-Biphenyl]-3-methanol, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)-alpha-(1-methylethyl)- (CA INDEX NAME)

10584234



RN 860174-27-2 CAPLUS

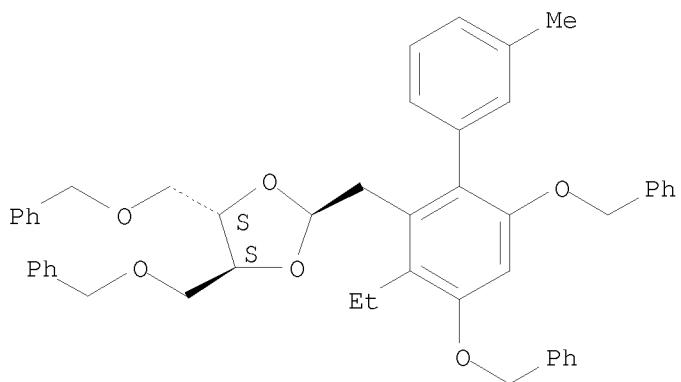
CN Piperidine, 4-acetyl-1-[3-bromo-4,6-bis(methoxymethoxy)[1,1'-biphenyl]-2-yl]acetyl- (9CI) (CA INDEX NAME)



RN 860293-49-8 CAPLUS

CN 1,3-Dioxolane, 2-[[3-ethyl-3'-methyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

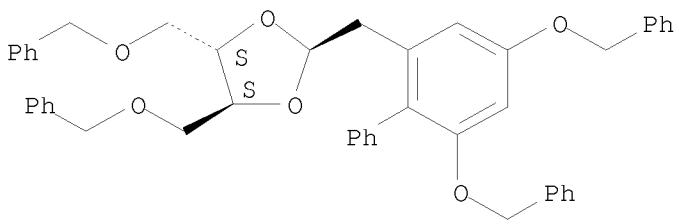


RN 860293-51-2 CAPLUS

CN 1,3-Dioxolane, 2-[[4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

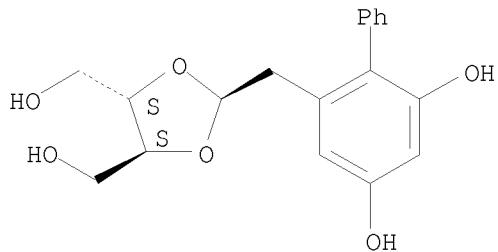
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RN 860293-52-3 CAPLUS

CN 1,3-Dioxolane-4,5-dimethanol, 2-[(4,6-dihydroxy[1,1'-biphenyl]-2-yl)methyl]-, (4S,5S)- (CA INDEX NAME)

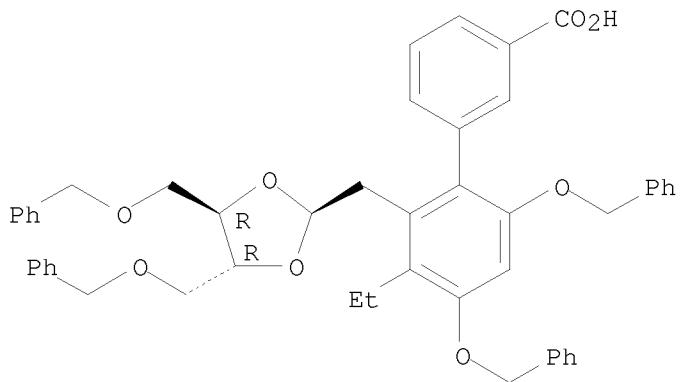
Absolute stereochemistry.



RN 860293-53-4 CAPLUS

CN [1,1'-Biphenyl]-3-carboxylic acid, 2'--[[(4R,5R)-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

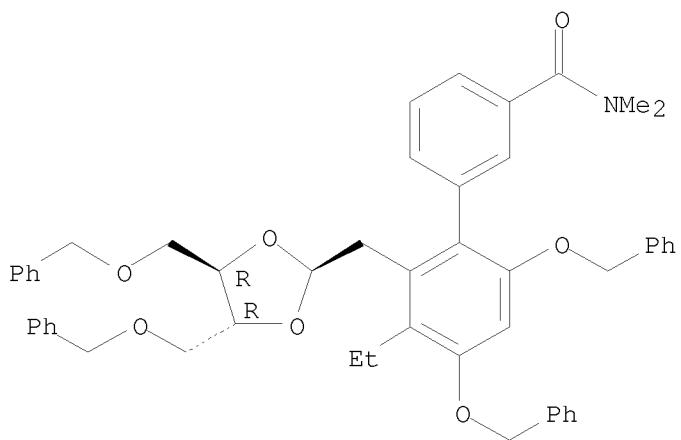


RN 860293-54-5 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'--[[(4R,5R)-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-N,N-dimethyl-4',6'-bis(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

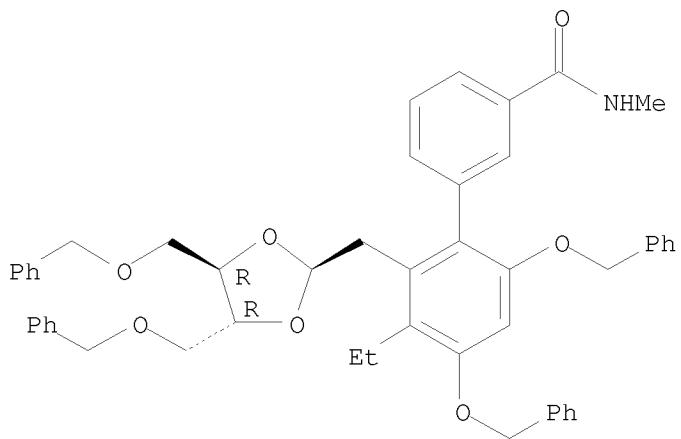
10584234



RN 860293-55-6 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-([(4R,5R)-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-N-methyl-4',6'-bis(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

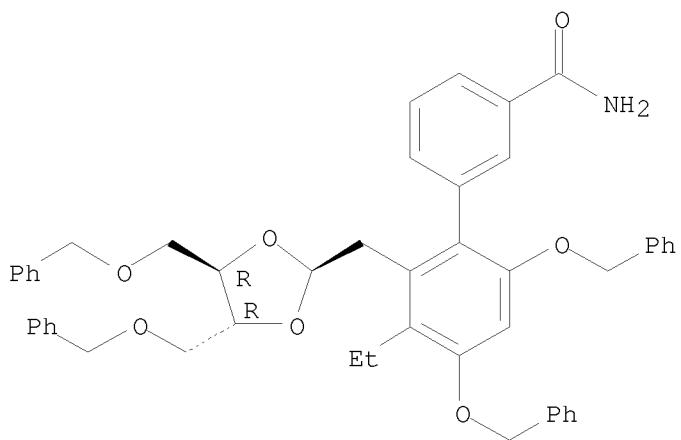


RN 860293-56-7 CAPLUS

CN [1,1'-Biphenyl]-3-carboxamide, 2'-([(4R,5R)-4,5-bis[(phenylmethoxy)methyl]-1,3-dioxolan-2-yl]methyl]-3'-ethyl-4',6'-bis(phenylmethoxy)- (CA INDEX NAME)

Absolute stereochemistry.

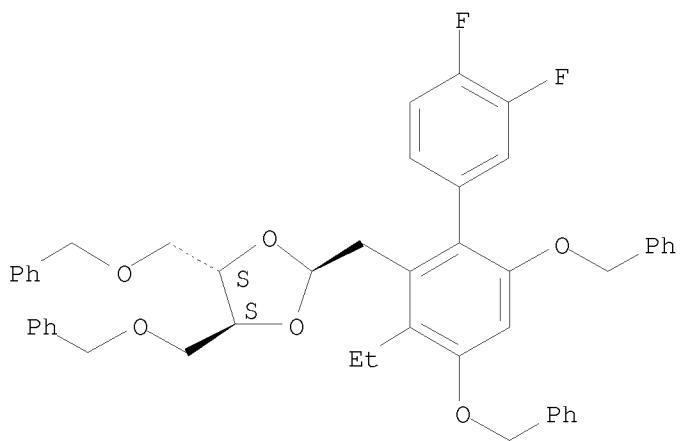
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RN 860293-58-9 CAPLUS

CN 1,3-Dioxolane, 2-[3-ethyl-3',4'-difluoro-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

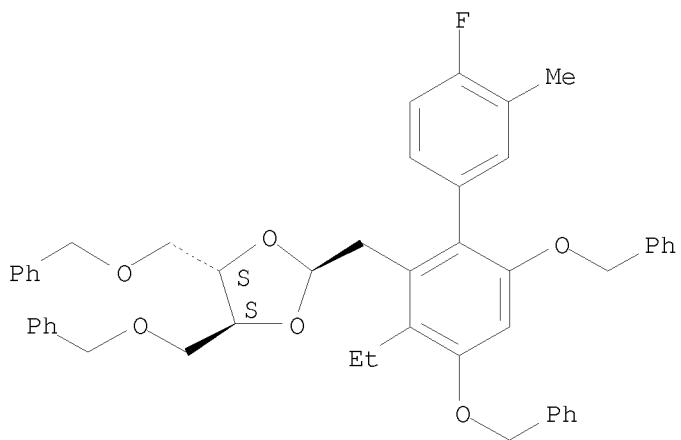


RN 860293-59-0 CAPLUS

CN 1,3-Dioxolane, 2-[3-ethyl-4'-fluoro-3'-methyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (4S,5S)- (CA INDEX NAME)

Absolute stereochemistry.

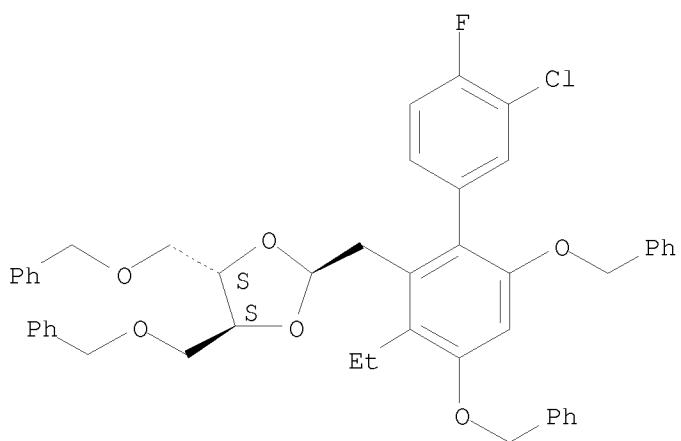
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RN 860293-60-3 CAPLUS

CN 1,3-Dioxolane, 2-[3'-chloro-3-ethyl-4'-fluoro-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (4S,5S)- (CA INDEX NAME)

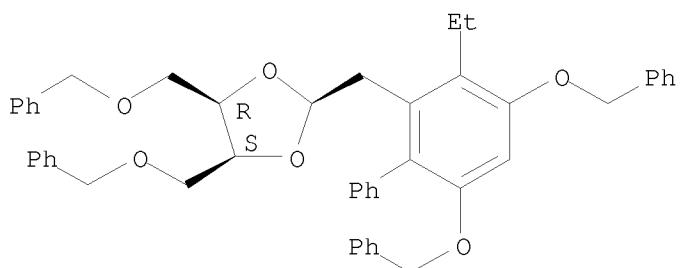
Absolute stereochemistry.



RN 860293-61-4 CAPLUS

CN 1,3-Dioxolane, 2-[3-ethyl-4,6-bis(phenylmethoxy)[1,1'-biphenyl]-2-yl]methyl]-4,5-bis[(phenylmethoxy)methyl]-, (4R,5S)- (9CI) (CA INDEX NAME)

Relative stereochemistry.

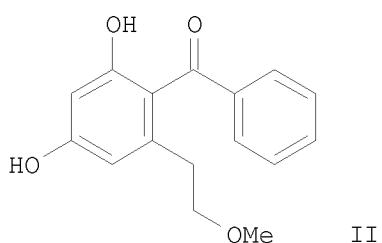
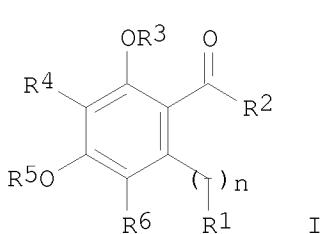


REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2005:14345 CAPLUS  
 DOCUMENT NUMBER: 142:93527  
 TITLE: Preparation of benzophenone derivatives as HSP90 inhibitors for treatment of tumor  
 INVENTOR(S): Nara, Shinji; Nakagawa, Hiroshi; Kanda, Yutaka;  
 Nakashima, Takayuki; Soga, Shiro; Kajita, Jiro; Saito,  
 Jun-ichi; Shiotsu, Yukimasa; Akinaga, Shiro  
 PATENT ASSIGNEE(S): Kyowa Hakko Kogyo Co., Ltd., Japan  
 SOURCE: PCT Int. Appl., 206 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005000778	A1	20050106	WO 2004-JP8494	20040610
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2004251949	A1	20050106	AU 2004-251949	20040610
CA 2530374	A1	20050106	CA 2004-2530374	20040610
EP 1642880	A1	20060405	EP 2004-746022	20040610
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
CN 1791568	A	20060621	CN 2004-80013807	20040610
US 2007032532	A1	20070208	US 2005-561415	20051219
PRIORITY APPLN. INFO.:			JP 2003-185475	A 20030627
			WO 2004-JP8494	W 20040610

OTHER SOURCE(S): MARPAT 142:93527  
 GI



AB The title compds. I [wherein n = 1-10; R1 = H, OH, CN, etc.; R2 = (un)substituted alkyl, alkenyl, alkynyl, cycloalkyl, aryl, or heteroaryl;

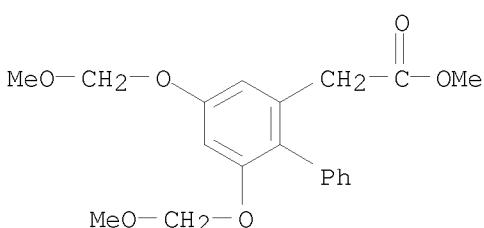
R3 and R5 = independently H, (un)substituted alkyl, alkenyl, etc.; R4 and R6 = independently H, OH, halo, CN, etc.] or prodrugs or pharmaceutically acceptable salts thereof are prepared as heat-shock proteins (HSP) 90 inhibitors. For example, the compound II was prepared in a multi-step synthesis. II inhibited >30% human HSP90 at the concentration of 10  $\mu$ M. I are useful as antitumor agents (no data).

IT 819812-46-9P 819812-47-0P 819812-48-1P  
819812-49-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(intermediate; preparation of benzophenone derivs. as HSP90 inhibitors for treatment of tumor)

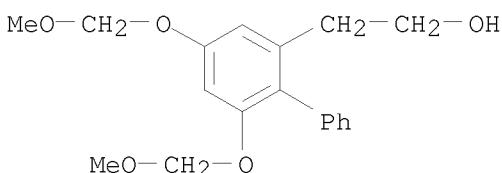
RN 819812-46-9 CAPLUS

CN [1,1'-Biphenyl]-2-acetic acid, 4,6-bis(methoxymethoxy)-, methyl ester (CA INDEX NAME)



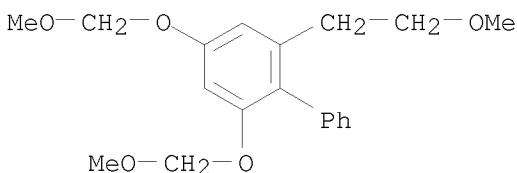
RN 819812-47-0 CAPLUS

CN [1,1'-Biphenyl]-2-ethanol, 4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 819812-48-1 CAPLUS

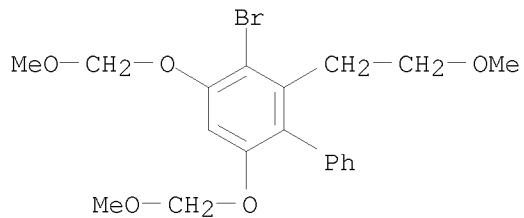
CN 1,1'-Biphenyl, 2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)



RN 819812-49-2 CAPLUS

CN 1,1'-Biphenyl, 3-bromo-2-(2-methoxyethyl)-4,6-bis(methoxymethoxy)- (CA INDEX NAME)

10584234



REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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